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ABSTRACT

This report presents the results of a four-phase effort in which guidelines describing the qualities and characteristics of a successful drug education program were formulated. The research, conducted at Fort Knox, Kentucky, consisted of a survey on drug usage and related attitudes administered to Army personnel, and a review of civilian drug education programs resulting in suggestions for a model program, and a search of psychological literature on attitude change. Data and information obtained from these three sources formed the framework on which a set of eighteen guidelines for use in designing and implementing drug education programs was developed. Findings indicated some approaches currently used in civilian programs could be useful in military drug education programs. Continuing concern over the nontherapeutic use of drugs in the Army is reflected in Army regulations directing that drug education efforts be made. The guidelines presented in this report, while primarily developed for the use of those concerned with implementation of drug education programs in the Army, are equally applicable for use in civilian programs. (Author)

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Richard E. Kriner, David C. Routenberg, and
Carol L. Seabright

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Educational Approaches to the Prevention of Nontherapeutic Use of Drugs

Richard E. Kriner, David C. Routenberg, and
Carol L. Seabright

HumRRO Division No. 2
Fort Knox, Kentucky

HUMAN RESOURCES RESEARCH ORGANIZATION

Work Unit PREVENT

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The Human Resources Research Organization (HumRRO) is a nonprofit corporation established in 1969 to conduct research in the field of training and education. It is a continuation of The George Washington University Human Resources Research Office. HumRRO's general purpose is to improve human performance, particularly in organizational settings, through behavioral and social science research, development, and consultation. HumRRO's mission in work performed under contract with the Department of the Army is to conduct research in the fields of training, motivation, and leadership.

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FOREWORD

The work described in this report was performed by the Human Resources Research Organization under Work Unit PREVENT, Military Educational Approaches to the Prevention of Non-Therapeutic Use of Drugs. The objective of Work Unit PREVENT was to develop a set of guidelines that would designate the qualities or characteristics of a successful drug education program.

In fulfillment of this objective, the four-phase effort involved (a) a survey of drug usage and related attitudes at Fort Knox, Kentucky, (b) a review of 15 existing civilian drug education programs, (c) a brief review of the psychological research and theory of attitude change, and (d) development of a set of guidelines for successful drug education programs.

The research was conducted at HumRRO Division No. 2, Fort Knox, Kentucky, where Dr. Donald F. Haggard is the Director of Research. Dr. Richard E. Kriner served as Work Unit Leader, with the assistance of Mr. David C. Routenberg and Ms. Carol L. Seabright. SP4 Roger G. Hoffman and SP4 Tracy L. Laughlin of the U.S. Army Armor Human Research Unit also assisted in the project. LTC Willis G. Pratt is Chief of the Unit.

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Meredith P. Crawford
President
Human Resources Research Organization

SUMMARY AND CONCLUSIONS

PROBLEM

The current trend in drug abuse in both military and civilian segments of our society poses a major social problem. Although treatment and rehabilitation efforts can help in overcoming the problem, preventive drug education is considered by many to be the key to successfully solving this problem. Both military and civilian communities, therefore, face the problem of establishing effective drug prevention education programs.

In earlier attempts at drug education, some harsh realities became evident. Crisis programs relying on inaccurate information and outdated notions about drug use met with drastic failure. Drug programs that failed to treat their audience as individuals and failed to understand the feelings and needs of those who received the program proved unsuccessful.

The programs that are now being devised and those to be implemented in the future can benefit by the earlier failures and the increased awareness of what constitutes an effective drug program. New guidelines that are more realistically oriented and more understandingly formulated are now needed for the design of new programs. The purpose of the present research and effort is to provide such guidelines.

APPROACH

The development of these guidelines for drug education programs involved four phases.

Survey of Drug Usage and Related Attitudes (Phase I). To serve as a source of data about drug users and non-users, and about attitudes that could be important in formulating guidelines for drug programs, a questionnaire was developed and administered to 2,149 military personnel at Fort Knox, Kentucky. The survey covered a variety of demographic factors as well as information regarding current and intended future usage of alcohol, marijuana, and six other types of drugs. The sample included enlisted and officer personnel, basic and advanced trainees, and a group of soldiers in the stockade or special confinement facility. Data from this sample do not necessarily reflect the Army as a whole, since the sample was drawn only from personnel at Fort Knox in the first quarter of FY 1972.

Review of Civilian Drug Education Programs (Phase II). Fifteen existing drug education programs used in civilian settings were reviewed to provide a basis for developing a model program. An analysis was made of a number of factors, including the basic orientation and comprehensiveness of the programs, the size and composition of the audience, and the techniques used in program presentation. Characteristics of the programs were then summarized and a model for drug programs was suggested.

Review of the Psychological Literature (Phase III). A brief overview of some typical theoretical approaches to attitude change was developed from a search of the psychological literature, in order to provide a better understanding of the interrelationships of the various components of the attitude framework and the complicated and often unpredictable nature of attitude change.

Drug Education Program Guidelines (Phase IV). A set of guidelines to be used in designing and implementing drug education programs was formulated.

RESULTS AND CONCLUSIONS

Survey of Drug Usage and Related Attitudes

Results from the survey of drug use and related attitudes indicated several important areas to be considered in drug education programs. Alcohol was by far the most widely used of the eight types of drugs surveyed; marijuana was the next most commonly used. There were almost twice as many current marijuana users as users of any of the remaining drug categories. Comparison of use of the two main drugs indicated that alcohol usage and marijuana usage involved two quite different groups of personnel. Alcohol users tended to be older, higher ranking, and more highly educated, while marijuana users tended to be from the younger age groups, lower rank groups, and lower levels of education. Those reporting usage of other drugs (tranquilizers, depressants, stimulants, narcotics, hallucinogens, and inhalants) were similar in age group, rank, and education to those using marijuana.

It was concluded that, in drug education, different emphasis should be given to alcohol and other drugs as a function of the audience composition. Where older, higher ranking, and more highly educated audiences are addressed, alcohol-related aspects of the presentation should be stressed somewhat over the other drug aspects. The reverse would be true where audience members are younger, less educated, and lower ranking. The audience composition would likewise determine the selection of the speaker or communicator, so that a source more similar in age, background, rank, and attitudinal structure would present the information to the audience. Because of the differences among these two target audience populations, the audience for a given presentation should be homogeneous in terms of age, rank, and education.

The results of the survey pointed to a lack of response or willingness to utilize such drug facilities as education centers and live-in treatment centers. In addition, the survey indicated that people learned about drugs from peers and personal experience, but learned very little from education programs. Finally, the survey indicated that peers, personal experiences, and experiences of others were major factors in decisions to stop or not use drugs. The conclusions from these results were that education programs should use peers in discussion and group activities as much as possible, since peers are a strong social force in drug decisions. In addition, more emphasis needs to be given to the importance of utilizing facilities such as rap centers, education centers, and live-in treatment facilities.

Review of Civilian Drug Education Programs

The review of existing drug education programs showed that approaches using peers and discussions rather than straight lectures were more apparent among civilian programs. Some programs actually used students as program personnel and decision makers. Most programs lacked any formal evaluation of their effectiveness, therefore it was not possible to discuss the characteristics of successful programs as opposed to unsuccessful programs. For this reason, a basic element of guidelines for drug education programs must be periodic evaluation of the program and a preliminary assessment of the potential audience with which to compare later assessments of behavior, attitudes, and knowledge of information.

Review of the Psychological Literature

During Phase III, the psychological research literature on communication and attitude change was reviewed, in order to provide a theoretical framework on which guidelines for drug education programs could be developed. The theoretical approaches reviewed can be grouped into five general categories:

(1) Consistency Theories. The individual constantly strives to maintain consistency between and among his attitudes, beliefs, and behaviors; attitude change occurs in response to perceived inconsistencies.

(2) Functional Theories. Sustaining a particular attitude serves several functions; to make successful attitude changes, it is necessary to identify the functions served by specific attitudes.

(3) Social Judgment Theory. Attitude change consists of two steps: (a) the judgment or comparison that the individual makes of his attitude relative to the position being advocated, and (b) the subsequent change or lack of change in the individual's attitude. The degree of change depends upon the perceived discrepancy between the two attitudes.

(4) Information-Processing Approach. A complete attitude change consists of a six-stage response to communication: (a) *presentation* of relevant information or persuasive communication, (b) *attention* to the communication, (c) *comprehension* of the message, (d) *yielding*, or change in attitude, (e) *retention* of the change over time, and, finally, (f) *change in overt behavior*. These six steps are seen to be the dependent variables in the communication-attitude change process, while the independent variables are the five major components in communication: source, message, channel, receiver, and destination factors.

(5) Reinforcement Approach. Attitude changes are the result of new learning experiences, and general principles of learning concerned with attention and comprehension operate in the persuasive communication situation. From this basis, research has progressed to studies of the effect on persuasibility of communication-attitude change factors such as source characteristics, fear appeals, structure of the communication, active participation, effects of group membership, characteristics of the audience, and personality.

The review of the psychological literature documents the complicated interrelationships between attitudes, the complexity of the attitude change process, and the diversity of the theories that have been developed. Although none of the approaches appears wholly applicable to drug education, opportunities do exist for innovative use of certain aspects of these theories in drug education program design and content.

Drug Education Program Guidelines

In Phase IV, 18 guidelines, to be used in the implementation of drug education programs, were formulated, based upon the results of the earlier phases.

(1) Define the objectives and goals of the program. Specific and realistic objectives should be established, to serve as a guide to the structure and content of the program, and as criteria for evaluating the program's effectiveness.

(2) Compile a comprehensive library of drug facts, research findings, issues and opinions of authorities in the drug field, and a bibliography of literature on drugs. The availability of such material will contribute to the image of credibility necessary to effective communication, as well as afford a source of accurate information and authoritative opinion to aid in preparation of the program.

(3) Make a preliminary assessment of the knowledges, attitudes, and behaviors of the potential audience. Such an assessment serves as a "pre-test" of the target group, and supplies the information essential to the provision of effective speakers and relevant communication materials.

(4) Establish relationships with other programs, treatment facilities, and activities that are part of the audiences' environment. Because of the close relationship between drug education and drug treatment, contacts with rehabilitation and outreach programs, and with unit drug specialists, should be encouraged.

(5) Make provisions for discussion, role-playing, and active participation, rather than relying on lectures and films. Since discussion and role-playing enhance the effectiveness of persuasive communication, and involvement and commitment are important to attitude change, active participation should be a basic ingredient of a drug education program.

(6) Utilize speakers and instrumental personnel who are liked, trusted, informed, concerned, and similar to the potential audience (peers). Peers whose credibility is intensified because they are informed and concerned are recommended as speakers or drug education administrators.

(7) Whenever possible, provide for training those who conduct the program and interact with the audience. The people in charge of administering the program should be adequately trained at the several installations available within the military or at local mental health and drug education facilities.

(8) Provide related programs and services to those associated with the target audience, such as commanders, law officers, related community activities, and dependents. Since they interact with the target audience in a different capacity, these people can provide valuable insights and suggestions, as well as assist in making the program effective and well integrated.

(9) Keep a constant finger on the "pulse" of the program and audience, so that changes can be made where necessary and audience needs can be met. To be responsive, the drug education program should be flexible enough so that topics and issues of immediate concern to members of the audience can be incorporated into the program, daily if necessary.

(10) Provide for periodic evaluation of the effectiveness of the program in meeting the objectives and goals prescribed. Such an evaluation would serve as a "post-test" for comparison with the "pre-test," as well as an assessment of audience acceptance of the program that would indicate areas of needed improvement.

(11) Don't be discouraged if changes do not occur immediately. Attitudes should be assessed immediately following completion of a program, and again after some time period has elapsed, since attitude change can be only temporary, or can occur over time.

(12) Don't be judgmental of the audience—allow them to make their own decisions, based upon accurate, honest, up-to-date information from the program. The audience should not be pressured or judged, and should be allowed to interact and respond to the program freely.

(13) Allow the audience to question and challenge information and opinion and admit faults where they exist. This type of atmosphere encourages effective communication between audience and program administrator, and aids in the process of free decision.

(14) Don't make the program a "one-shot" crisis program, but instead make it a continuous program integrated with other programs and agencies locally. A continuous

and related effort that reflects concern and understanding is necessary because the target audience does not identify with a crash program.

(15) Utilize knowledgeable people in other fields, such as doctors, lawyers, law enforcement officials, counselors, and ex-addicts where warranted. Qualified professionals and carefully selected ex-addicts add variety as well as credibility to the program.

(16) Provide for as much peer interaction and input as possible, and allow audience members to interact with each other. Because of the strong influence peers have in formulating attitudes towards drugs, they are highly important to the effectiveness of the program.

(17) Let the participants or audience guide and structure the program as much as possible. Using peers in developing and implementing drug education programs assists in meeting audience needs and in providing interaction, relevance, and credibility.

(18) Convince the audience that there are other agencies where they can turn for help, and that there is nothing wrong with going to these agencies. The audience should be reassured that their needs are understood and that confidential agencies exist that can help them solve their problems.

Based, as they are, upon data from both theoretical and practical experience sources, combined with information from actual drug users, these guidelines should prove valuable in development and implementation of educational approaches for preventing the non-therapeutic use of drugs in the military.

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Educational Approaches to the Prevention of Nontherapeutic Use of Drugs

Chapter 1

INTRODUCTION

PROBLEM

The nontherapeutic use of drugs by younger members of today's population poses a major problem for military as well as civilian segments of our society. A recent survey of drug usage within the Department of Defense (1) indicated that 20% of the enlisted personnel in the Army had used narcotics during the 12-month period prior to the survey. Over 42% of Army enlisted personnel had used marijuana during the 12-month period, and almost 30% had used psychedelics. Additional data from interviews conducted at four Armed Services locations (2) showed that, among the sample, only minor increases were noted between their drug usage as civilians prior to military service and usage in military service. Among admitted narcotics users in the Army, almost 27% used narcotics over 50 times during the period from November 1970 to November 1971 (1).

The results of the DoD survey (1, 2) emphasize the considerable task to be performed in reducing the current trends in the abuse of drugs. Not only must drug dependents be treated and rehabilitated, potential drug users and experimenters must receive drug education. A program of preventive education to supplement treatment and rehabilitation can play a major role in reducing current drug usage trends. The role of preventive education is therefore an important aspect of the attack on drug abuse in both military and civilian communities.

RESEARCH OBJECTIVES

The major purpose of this project is to provide guidance to those who are responsible for the development and implementation of military educational approaches for preventing the nontherapeutic use of drugs. This guidance is based upon the integration of information regarding (a) characteristics and attitudes of self-reported drug users and non-users, (b) previous experience of civilian drug educators and educational programs, and (c) research findings from the psychological literature on communication and attitude change.

To accomplish this task, Work Unit PREVENT was organized in four phases, with each of the first three phases emphasizing one of the three sources of information mentioned above. The fourth phase was directed at the guidelines derived from the earlier phases.

During the first phase, a survey of drug usage and related attitudes was administered to a large sample of Army personnel at Fort Knox, Kentucky. From this survey, information was obtained regarding the characteristics and attitudes of drug users and non-users. In discussing effective attitude change programs, the characteristics of the "target audience" are often the basis for program selection. An understanding of the attitudes and characteristics of drug users may indeed be the crucial factor in devising drug education programs.

During the second phase of the project, various aspects of existing drug prevention education programs in the civilian community were reviewed and categorized. This was

done in order to see which existing programs were most effective and how these effective programs differed from other less effective drug education programs.

The third phase of the project involved a survey and review of the psychological research literature on communication and attitude change. During this phase, a number of attitude change theories were examined, along with several different approaches in the analysis of communication effectiveness. The purpose of this phase of the work unit was to provide a theoretical framework on which to develop guidelines for establishing effective educational programs for the prevention of drug abuse.

The final phase of PREVENT was directed at the integration of the results of the three previous phases of the project into a set of guidelines for use in establishing and implementing drug prevention education programs in the military. Guidelines resulting from this sort of integration offer the advantage of being based not only upon theory or past experience alone, but on a combination of the two. In addition, information regarding the attitudes and characteristics of the main target of prevention-education programs—drug users and experimenters—serves as additional framework in formulating a set of guidelines.

Chapter 2

SURVEY OF DRUG USAGE AND RELATED ATTITUDES

THE QUESTIONNAIRE

The survey questionnaire used in the first phase of the project was a 260-item survey of attitudes related to drug usage, personal history data, and drug usage data. The development and administration of the survey questionnaire was a joint effort of HumRRO Division No. 2 and U.S. Ireland Army Hospital, Mental Hygiene Consultation Service, Fort Knox, Kentucky.

An item pool was developed and pilot tested on 101 trainees in their second week of Individual Basic Combat Skills Training. The item pool included items pertaining to the following:

(1) Geographical Background
(2) Socio-Economic Background
(3) Personal History Data
(4) Patterns and Frequency of Drug and Alcohol Usage
(5) Attitudes Toward the Use of Drugs and Reasons for Their Use
(6) Information Regarding Willingness to Seek and/or Receive Help for a Reported Drug or Alcohol Problem

The final form of the survey was administered to a large sample of Army personnel during the first quarter of Fiscal Year 1972. In the instructions to subjects for filling out the survey, drug categories were defined as follows:

ALCOHOL	refers to	ANY ALCOHOLIC BEVERAGE (Beverage containing Ethyl alcohol) to include BEER, WINE, WHISKEY, GIN, VODKA, RUM, or BRANDY.
MARIJUANA	refers to	POT, GRASS, or HASHISH.
DRUGS (other than alcohol or marijuana)	refers to	SEDATIVES (downers, barbiturates) NARCOTICS (heroin, morphine, smack, codeine) STIMULANTS (amphetamines, speed, meth) TRANQUILIZERS (miltown, valium, librium) HALLUCINOGENS (acid, peyote, mescaline) INHALANTS (glue, gasoline, sterno) We are not referring to drugs used as prescribed by a doctor or as directed by a legitimate manufacturer.

THE SAMPLE

The sample was selected to be as representative of the total subject population as possible in view of scheduling difficulties and military unit responsibilities. The subject groups and group size are presented in Table 1. These subject groups were selected in order to represent a wide range of Army personnel in terms of grade, age, education, and time in service, and to include some subjects of special interest (i.e., Group 1). True randomization was not achieved. Subject Groups 2, 3, 7, and 8 were surveyed as complete classes in groups of 75 to 150 men each. Other groups were surveyed in groups of 15 to 50 individuals per session.

Table 1

Survey Subject Groups

Description	Group Number	Number Surveyed
Disciplinary Problems		
Stockade and special confinement facility (SPB) personnel	1	230
Trainees (From training brigades of U.S. Army Armored Center, Fort Knox, Kentucky)		
Basic trainees	2	238
Advanced Individual Training personnel	3	290
Permanent Party Enlisted Personnel (From cadre of four training brigades of U.S. Army Armored Center and 194th Armored Brigade)		
Lower ranking enlisted personnel (E-2s, E-3s and E-4s)	4	235
Junior noncommissioned officers (E-5, E-6)	5	260
Senior noncommissioned officers (E-7, E-8, and E-9)	6	127
Commissioned Officers		
Army officers (Basic class, U.S. Army Armor School, Fort Knox, Kentucky)	7	225
Armor officers (Advanced classes, U.S. Army Armor School, Fort Knox, Kentucky)	8	402
Field grade officers (From roster of field grade officers assigned to Fort Knox, Kentucky)	9	142
Total surveyed		2,149

Of the 2,149 personnel surveyed (all males), the proportion of the sample in each of seven age groups is shown in Table 2. As indicated, over 80% of the sample was under 30 years of age. The distribution by rank of the sample is shown in Table 3. Sixty-four percent of the sample was composed of enlisted personnel. Over 65% of the sample had been on active duty five years or less, as indicated in Table 4.

Table 2

Percentage of Sample by Age Category

Age Category	Percentage of Sample[a]
Under 20	16.9
20 - 24	44.6
25 - 29	19.8
30 - 34	8.0
35 - 39	4.9
40 - 44	3.1
45 and older	1.3
Total	98.6

[a]Percentages do not total 100% because some of the subjects failed to specify their age.

Table 3

Percentage of Sample by Grade Category

Grade Category	Percent of Sample
E-1, 2, 3	38.4
E-4, 5, 6	19.8
E-7, 8, 9	5.9
O-1, 2, 3	29.3
O-4, 5, 6	6.6
Total	100.0

Table 4

Percentage of Sample by Time on Active Duty

Time on Active Duty	Percentage of Sample[a]
4 months or less	32.5
5 months to 2 years	20.4
2 to 5 years	15.8
5 to 10 years	14.8
10 to 15 years	6.8
over 15 years	8.7
Total	99.0

[a]Percentages do not total 100% because some of the subjects failed to specify time on active duty.

Subjects made their responses on a coded answer sheet. These responses were then transferred to IBM punch cards with no subject identification information. The answer sheets were destroyed following this transfer in order to maintain anonymity of the subjects' responses.

RESULTS

Results of the General Drug and Alcohol Survey Form are presented in this section of the report. Since only a portion of the survey items were designed for HumRRO use, the presentation is limited to those items.

Current usage for each of eight categories of drugs was computed for the entire sample. These results appear in Table 5. With the exception of alcohol, the majority of the sample reported that they did not currently use drugs. Other than alcohol, marijuana was the drug reported most used currently (27.9%). Reported current usage of the other categories of drugs was noticeably lower. Stimulants (16.7%) and hallucinogens (15.4%) were the categories with the next most reported usage. Reported current usage of narcotics (12.6%) was next to the lowest. Frequency of current usage of each drug category for the entire sample is represented in Figure 1. From this Figure it is quite apparent that frequent use of alcohol (i.e., more than twice/week and as much as two or more times/day) is far more common (43.3%) than use of any of the other drugs.

Table 5

Current Usage of Each Category of Drug: Entire Sample

Drug Category	Percentage of Sample[a]	
	No Use	Any Use
Alcohol	11.8	87.8
Marijuana	71.4	27.9
Tranquilizers	85.7	13.5
Depressants	85.0	14.1
Stimulants	82.3	16.7
Narcotics	86.6	12.6
Hallucinogens	83.6	15.4
Inhalants	89.2	10.0

[a]Column percentages are not additive because of multiple drug use.

Less than 6% of the sample reported using alcohol two or more times/day. A fairly constant percentage of the sample (about 4.5%) reported using the other drugs two or more times/day.

AGE AND EDUCATION OF DRUG USERS

The frequency of current usage of alcohol by age group is presented in Table 6. Almost 20% of the personnel 17-19 years of age reported having never used alcohol, while only 6.3% of personnel 25 to 29 years of age reported never using alcohol. The legal age for drinking alcohol (21 years old) obviously plays some part in the reported usage for those under 20 years of age, and to some extent those 20-24 years of age. The most common response for all ages indicated usage of alcohol from one time per week to more than two times per week, but less than once a day.

In Table 7 current frequency of alcohol usage is presented for nine categories of highest educational level completed. Among those who had an eighth grade education or

Rate of Current Usage of Each Drug Category: Entire Sample

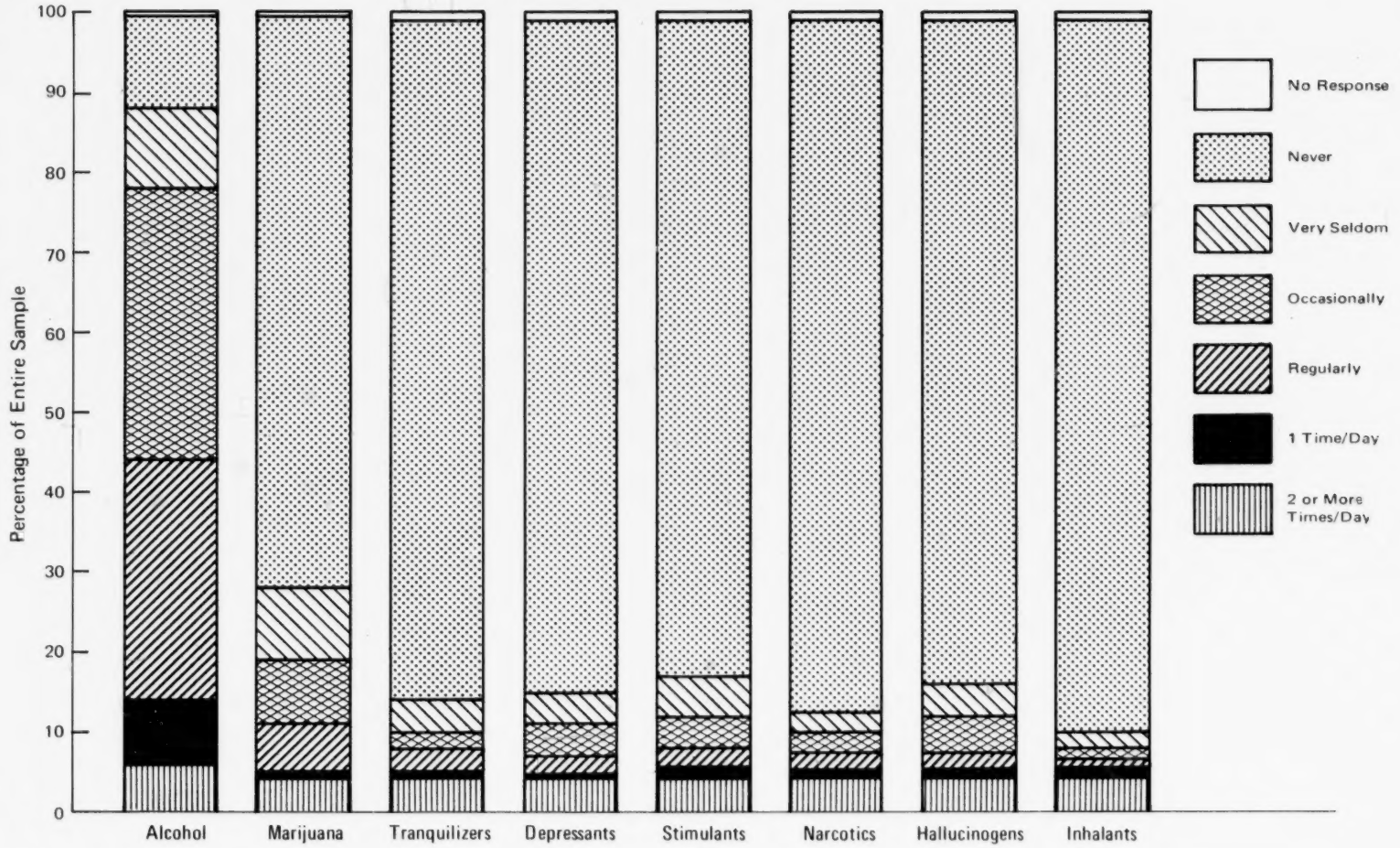

Figure 1

Table 6

Current Frequency of Alcohol Usage for Different Age Groups: Entire Sample

Frequency of Alcohol Usage	Age Group (Percent)					
	Under 20 yrs	20-24	25-29	30-34	35-39	40 and Over
Never	19.9	12.6	6.3	8.7	8.0	10.3
Seldom	13.3	11.4	6.1	10.5	13.4	9.3
Occasionally	29.8	34.4	34.3	39.5	28.6	43.3
Regularly	25.4	29.4	36.2	30.2	33.9	23.7
1 time/day	6.1	6.7	8.9	6.4	10.7	11.3
2+ times/day	5.5	5.5	8.2	4.7	5.4	2.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 7

Current Frequency of Alcohol Usage for Nine Categories of Highest Educational Level Completed: Entire Sample

Frequency of Alcohol Usage	Highest Level of Education Completed (Percent)[a]								
	8th Grade or Less	Some High School	G.E.D.	High School Graduate	Trade or Vocational School	Some College	College Graduate	Graduate Studies	Graduate Degree
Never	23.9	17.5	10.0	16.5	7.9	8.2	7.4	6.0	6.9
Seldom	8.5	14.0	13.4	12.8	26.3	10.0	4.8	7.2	5.9
Occasionally	23.9	29.7	38.3	35.2	26.3	38.6	32.1	37.3	31.7
Regularly	23.9	22.0	29.7	23.8	23.7	29.7	41.8	37.3	41.6
1 time/day	7.0	7.0	3.8	5.6	10.5	9.4	8.3	10.8	11.9
2+ times/day	12.7	9.8	4.8	6.1	5.3	4.2	5.7	1.2	2.0
Total	99.9	100.0	100.0	100.0	100.0	100.1	100.1	99.8	100.0

[a]Percentages may not total exactly 100.0%, because of rounding error.

less, 23.9% reported never using alcohol, while only 6.0% of those with some graduate education, but no graduate degree, reported never having used alcohol.

Table 6 and Table 7 suggest that personnel between the ages of 25 and 40 who have had education beyond high school contribute a large portion of the alcohol-using group. This relationship does not apply to the usage of marijuana among the same age and education categories as shown in Table 8 and Table 9. In the case of marijuana, the younger (under 25 years of age) personnel and those with no college education provide the greater portion of marijuana users. Only 55.2% of those under 20 years of age reported never using marijuana while over 90% of those in the three age groups over 30 reported never using marijuana (91.9, 95.5, and 95.9% respectively). Among those with some high school education, but not high school graduates, only 50% reported never using marijuana. Among those with graduate degrees, 88.1% reported no use of marijuana.

The current frequency of usage for the remaining drug categories is shown by age groups in Table 10. The patterns of reported frequency of current usage by age groups are quite similar for the six drug categories. In each case, the age group "under 20 years" had the smallest percentage reporting no use of the drug (76.9, 75.6, 74.6, 78.5, 73.2, and 82.5%, respectively, for each drug category). However, the same age group (under 20 years) had the smallest or next smallest percentage reporting use of the drug two or more times/day (2.8, 2.8, 3.1, 3.1, 3.9, and 3.9%, respectively, for each drug category). In all cases, for all age groups, the percentage reporting no use of the drug was greater than 70%. In addition, for all age groups, the percentage reporting use of the drug two or more times/day was less than 6.0%. An interesting pattern of usage to note was that as age increased there was a notable tendency for personnel to report extremes—either no use of the drug at all or use of the drug on a very frequent basis (two or more times/day). This pattern seems to indicate that older personnel who use a drug do so very frequently (i.e., they are "strung out"), while younger personnel report usage at a variety of frequencies from no use at all through experimentation and casual usage to heavy usage.

Among the drugs other than alcohol and marijuana, there does not appear to be a different "drug of preference" for any single age group. The reported frequency of use of the six drug categories listed as "Other Drugs" seems fairly constant for each age group across the six drug categories. There is a general trend indicating slightly less usage of inhalants compared to the reported usage of the other five drug categories. This finding is fairly consistent with the image of "glue sniffers" as being young teenagers rather than persons in their late teens and older who composed the subject sample in this survey. In addition, it was found that the heaviest usage of drugs other than alcohol or marijuana occurred among subjects between 20 and 34 years of age.

The relationship of current frequency of usage and amount of education for the drug categories other than alcohol and marijuana is indicated by the data presented in Table 11. Personnel with *less* education reported *more* drug usage than those with *higher* levels of education. In other words, there is generally an *inverse* relationship between amount of education completed and reported drug usage. In some instances, however, this relationship does not strictly hold. With stimulants, narcotics, and hallucinogens, personnel with trade or vocational school education reported the greatest percentage of any use of those drugs (39.5, 34.3 and 31.6, respectively). In each of those instances (stimulants, narcotics, and hallucinogens), personnel with some high school education reported more usage than those with an eighth grade education or less. The relationship between education and reported current usage of these drugs is that personnel with *no college education* report *greater* current usage than those with at least some college education.

Table 8

Current Frequency of Marijuana Usage for Different Age Groups: Entire Sample

Frequency of Marijuana Usage	Age Group (Percent)					
	Under 20 yrs	20-24	25-29	30-34	35-39	40 and Over
Never	55.2	62.9	86.6	91.9	95.5	95.9
Seldom	13.4	12.7	5.2	1.7	0.0	0.0
Occasionally	14.5	11.4	3.3	1.7	0.0	1.0
Regularly	10.6	7.7	0.0	0.0	0.0	0.0
1 time/day	1.9	0.9	0.5	0.0	0.0	0.0
2+ times/day	4.5	4.4	4.5	4.7	4.5	3.1
Total	100.1	100.0	100.1	100.0	100.0	100.0

Table 9

Current Frequency of Marijuana Usage for Nine Categories of Highest Educational Level Completed: Entire Sample

Frequency of Marijuana Usage	Highest Level of Education Completed (Percent)								
	8th Grade or Less	Some High School	G.E.D.	High School Graduate	Trade or Vocational School	Some College	College Graduate	Graduate Studies	Graduate Degree
Never	65.7	50.0	72.0	65.1	55.3	79.7	83.1	88.0	88.1
Seldom	12.9	13.7	8.2	11.7	10.5	5.9	6.9	6.0	6.9
Occasionally	7.1	16.2	7.7	10.7	13.2	6.7	4.8	2.4	3.0
Regularly	2.9	13.0	8.2	6.3	10.5	2.2	1.4	2.4	1.0
1 time/day	5.7	1.4	0.5	1.3	2.6	0.2	0.0	0.0	0.0
2+ times/day	5.7	5.6	3.4	4.8	7.9	5.2	3.8	1.2	1.0
Total	100.0	99.9	100.0	99.9	100.0	99.9	100.0	100.0	100.0

Table 10

Current Frequency of Usage of "Other Drugs" for Different Age Groups: Entire Sample

Frequency of Drug Usage	Age Group (Percent)					
	Under 20 yrs	20-24	25-29	30-34	35-39	40 and Over
Tranquilizers						
Never	76.9	84.8	92.7	91.9	92.8	93.8
Seldom	8.1	4.2	1.4	1.7	2.7	2.1
Occasionally	5.0	3.3	0.2	1.2	0.0	1.0
Regularly	6.1	1.8	0.2	0.0	0.0	0.0
1 time/day	1.1	1.1	0.0	0.6	0.0	0.0
2+ times/day	2.8	4.8	5.4	4.7	4.5	3.1
Depressants						
Never	75.6	82.9	93.4	92.4	95.5	95.9
Seldom	8.4	4.5	0.7	0.6	0.0	0.0
Occasionally	8.1	4.5	0.2	1.2	0.0	0.0
Regularly	4.5	2.3	0.2	1.2	0.0	1.0
1 time/day	0.6	0.8	0.0	0.0	0.0	0.0
2+ times/day	2.8	4.8	5.4	4.7	4.5	3.1
Stimulants						
Never	74.6	78.1	92.0	92.4	95.5	96.9
Seldom	8.4	6.6	1.6	0.6	0.0	0.0
Occasionally	7.0	6.1	0.2	1.2	0.0	0.0
Regularly	5.3	3.0	0.2	0.6	0.0	0.0
1 time/day	1.7	1.6	0.2	0.6	0.0	0.0
2+ times/day	3.1	4.6	5.6	4.7	4.5	3.1
Narcotics						
Never	78.5	85.1	93.9	93.0	95.5	95.9
Seldom	7.0	3.9	0.0	0.0	0.0	0.0
Occasionally	7.5	2.5	0.0	0.0	0.0	0.0
Regularly	2.2	2.3	0.0	0.6	0.0	0.0
1 time/day	1.7	1.4	0.5	0.6	0.0	1.0
2+ times/day	3.1	4.8	5.6	5.8	4.5	3.1
Hallucinogens						
Never	73.2	80.6	93.4	93.0	95.5	96.9
Seldom	7.8	5.5	0.7	0.0	0.0	0.0
Occasionally	9.8	5.4	0.0	0.6	0.0	0.0
Regularly	4.5	2.7	0.0	0.6	0.0	0.0
1 time/day	0.8	1.0	0.5	1.2	0.0	0.0
2+ times/day	3.9	4.9	5.4	4.7	4.5	3.1
Inhalants						
Never	82.5	89.4	93.9	93.0	95.5	95.9
Seldom	5.0	2.8	0.0	0.0	0.0	0.0
Occasionally	5.0	1.3	0.2	0.6	0.0	0.0
Regularly	2.5	1.4	0.0	1.7	0.0	1.0
1 time/day	1.1	0.4	0.0	0.0	0.0	0.0
2+ times/day	3.9	4.7	5.9	4.7	4.5	3.1

Table 11

Current Frequency of Usage of "Other Drugs" for Nine Categories of Highest Educational Level Completed: Entire Sample

Frequency of Drug Usage	Highest Level of Education Completed (Percent)								
	8th Grade or Less	Some High School	G.E.D.	High School Graduate	Trade or Vocational School	Some College	College Graduate	Graduate Studies	Graduate Degree
Tranquilizers									
Never	73.2	75.2	85.4	84.6	76.3	91.6	90.7	97.6	96.0
Seldom	9.9	8.9	3.9	3.8	5.3	1.7	2.6	1.2	1.0
Occasionally	7.0	5.7	4.4	2.7	7.9	1.0	0.5	0.0	0.0
Regularly	1.4	5.0	1.9	2.7	5.3	1.0	0.5	0.0	1.0
1 time/day	1.4	1.8	1.5	1.2	0.0	0.0	0.0	0.0	0.0
2+ times/day	7.0	3.5	2.9	5.0	5.3	4.7	5.7	1.2	2.0
Depressants									
Never	73.2	72.0	84.0	82.7	73.7	91.8	92.1	97.6	96.0
Seldom	9.9	8.2	4.9	4.2	13.2	1.0	1.2	1.2	0.0
Occasionally	5.6	8.5	5.8	4.8	0.0	1.7	0.5	0.0	1.0
Regularly	2.8	6.7	1.9	2.3	7.9	0.5	0.2	0.0	1.0
1 time/day	2.8	1.1	0.5	0.8	2.6	0.0	0.0	0.0	0.0
2+ times/day	5.6	3.5	2.9	5.2	2.6	5.0	6.0	1.2	2.0
Stimulants									
Never	70.0	67.7	79.6	81.7	60.5	88.9	91.0	94.0	93.1
Seldom	7.1	7.4	6.3	5.2	13.2	4.0	2.1	2.4	3.0
Occasionally	10.0	11.0	5.3	3.7	13.2	1.7	1.0	2.4	1.0
Regularly	2.9	6.0	2.4	3.5	10.5	0.5	0.2	0.0	1.0
1 time/day	2.9	3.2	2.4	1.2	2.6	0.2	0.0	0.0	0.0
2+ times/day	7.1	4.6	3.9	4.8	0.0	4.7	5.7	1.2	2.0

(Continued)

Table 11 *(Continued)*

Current Frequency of Usage of "Other Drugs" for Nine Categories of Highest Educational Level Completed: Entire Sample

Frequency of Drug Usage	Highest Level of Education Completed (Percent)								
	8th Grade or Less	Some High School	G.E.D.	High School Graduate	Trade or Vocational School	Some College	College Graduate	Graduate Studies	Graduate Degree
Narcotics									
Never	77.5	75.8	85.9	84.8	65.8	92.8	92.6	98.8	97.0
Seldom	2.8	8.2	4.4	2.9	7.9	1.5	1.0	0.0	0.0
Occasionally	7.0	5.7	2.4	4.0	7.9	0.5	0.2	0.0	0.0
Regularly	2.8	3.2	1.9	1.9	7.9	0.2	0.2	0.0	1.0
1 time/day	2.8	1.8	2.4	1.7	5.3	0.0	0.0	0.0	0.0
2+ times/day	7.0	5.3	2.9	4.6	5.3	5.0	6.0	1.2	2.0
Hallucinogens									
Never	73.2	71.1	82.9	80.8	68.4	89.6	91.4	97.6	97.0
Seldom	4.2	7.5	5.4	5.0	0.0	3.5	1.4	1.2	0.0
Occasionally	8.5	10.4	4.4	5.2	18.4	1.5	1.0	0.0	0.0
Regularly	5.6	5.0	2.4	3.1	5.3	0.5	0.0	0.0	1.0
1 time/day	1.4	1.4	1.5	1.2	5.3	0.2	0.0	0.0	0.0
2+ times/day	7.0	4.6	3.4	4.8	2.6	4.7	6.2	1.2	2.0
Inhalants									
Never	74.6	81.2	89.8	89.0	81.6	94.1	93.1	98.8	97.0
Seldom	5.6	6.4	3.4	1.5	7.9	0.5	0.5	0.0	0.0
Occasionally	5.6	3.5	2.4	1.7	2.6	0.5	0.2	0.0	0.0
Regularly	2.8	2.8	1.0	1.9	5.3	0.2	0.2	0.0	1.0
1 time/day	2.8	1.1	0.5	0.4	0.0	0.0	0.0	0.0	0.0
2+ times/day	8.5	5.0	2.9	5.4	2.6	4.7	6.0	1.2	2.0

USAGE BY SUBJECT GROUP

In Table 12, the frequency of current alcohol usage is presented for each of the subject groups surveyed (see Table 1). The subject group reporting the smallest percentage of alcohol usage at any frequency was Group 2 (75.8%). This group of respondents was composed of basic trainees surveyed during fill week. It should be noted, however, that many of these trainees are under the legal drinking age, which is likely to influence the percentage reporting that they are currently using alcohol. The group reporting the greatest amount of alcohol usage at any frequency was Group 9 (95.7%). This group was composed of field grade officers all of whom are certainly of legal drinking age. In addition, they represent a group of individuals who frequently engage in "social" drinking. This group of personnel reported the greatest percentage using alcohol one time/day (17.6%). At the same time, they reported the smallest percentage (2.1%) of personnel currently using alcohol two or more times/day.

Table 12

Current Frequency of Alcohol Usage by Subject Groups

Frequency of Alcohol Usage	Subject Group (Percent)[a]								
	1	2	3	4	5	6	7	8	9
Never	18.7	24.4	10.0	14.9	11.5	12.6	7.1	5.2	4.2
Seldom	13.0	13.9	12.1	14.0	11.9	15.7	5.8	6.0	4.9
Occasionally	24.3	30.3	34.5	36.6	38.1	42.5	34.2	33.8	35.2
Regularly	20.0	22.3	32.4	22.1	27.3	20.5	40.9	39.6	35.9
1 time/day	7.4	5.5	5.5	6.0	6.5	4.7	9.3	7.7	17.6
2+ times/day	16.1	3.8	4.8	4.3	4.6	3.9	2.7	7.7	2.1

[a]See Table 1. Percentages within groups may not total exactly 100.0% because some of the subjects failed to respond to the item. The percentages are based upon the total number of subjects in each subject group

In Table 13, the reported frequency of current marijauna usage is presented for each subject group surveyed. The field grade officer group (Group 9) and the senior NCO group (Group 6) reported the smallest percentages using marijuana at any frequency (4.9 and 3.9%, respectively), while personnel in Group 1 (stockade and SPB personnel) reported the largest percentage using marijuana currently (54.8%). In addition, personnel in Group 1 also reported the greatest percentage using marijuana on a daily basis (13.0%).

The percentages of each subject group reporting current frequency of usage of the remaining drugs are shown in Table 14. The frequency of current usage patterns by subject group are similar to those by age and by educational level. In other words, among the six drugs categorized as "other drugs," similar and fairly constant patterns of usage appear across the six drug types. In addition, this pattern is similar to that of marijuana use except at a lower overall level of usage. Those subject groups composed of young enlisted-level personnel reported greater usage of each drug than did the groups of older or officer-grade personnel.

With the exception of hallucinogens, Group 1 (stockade and SPB personnel) reported the smallest percentage of *non-users* of each of the "other drugs"—tranquilizers (70.9%), depressants (63.5%), stimulants (59.1%), narcotics (70.9%), and inhalants (76.5%). This group (Group 1) reported the *next smallest* percentage of non-users for

Table 13

Current Frequency of Marijuana Usage by Subject Groups

Frequency of Marijuana Usage	Subject Group (Percent)[a]								
	1	2	3	4	5	6	7	8	9
Never	44.3	71.4	54.1	44.7	77.3	95.3	80.0	90.5	95.1
Seldom	12.2	8.4	14.5	16.2	9.6	0.8	13.3	2.5	0.7
Occasionally	16.1	10.5	14.5	18.7	5.8	0.0	4.4	1.7	0.7
Regularly	13.5	7.6	9.0	11.9	2.3	0.0	0.9	0.0	0.0
1 time/day	4.3	0.0	1.4	1.3	0.4	0.0	0.0	0.0	0.0
2+ times/day	8.7	2.1	5.2	4.3	4.6	3.1	1.3	5.0	3.5

[a]See Table 1. Percentages within groups may not total 100.0% because some of the subjects failed to respond to the item. The percentages are based upon the total number of subjects surveyed in each subject group.

hallucinogens (67.0%). On the other hand, Group 9 (field grade officers) reported the largest percentage of *non-users* for depressants (95.8%), narcotics (96.5%), hallucinogens (96.5%), and inhalants (96.5%). Except for inhalants, the percentage of *non-users* was greater for the senior NCO group (Group 6) and all three officer groups (Groups 7, 8, and 9) than that reported by the other groups. In the case of inhalants, Group 2 (basic trainees) was the only exception to this relationship.

USAGE BY TIME ON ACTIVE DUTY

The relationship between time on active duty and reported frequency of current alcohol usage is shown in Table 15. Those personnel with five to ten years of active duty and those with over 15 years' active duty reported the largest percentages of men currently using alcohol to some extent (92.9 and 92.7%, respectively). However, the group reporting the smallest percentage currently using alcohol two or more times/day was the group with 10 to 15 years active duty (3.4%). In all groups, less than 20% reported using alcohol on a daily basis ("1 time/day" or "2 or more times/day").

The relationship between time on active duty and reported frequency of current marijuana usage is shown in Table 16. The personnel with five months to two years on active duty reported the greatest percentage using marijuana (46.7%), while those with five years or more on active duty reported 10% or less currently using marijuana. However, the group with four months or less on active duty reported the smallest percentage (4.2%) currently using marijuana on a daily basis ("1 time/day" or "2 or more times/day").

This same relationship is shown in Table 17 for four of the remaining drug categories (tranquilizers, stimulants, narcotics, and hallucinogens). Within each of these drug categories, the relationship between time on active duty and frequency of current drug usage is quite similar to that for current marijuana usage, but at a lower overall level of usage. In other words, the same group of personnel (those with five months to two years of time on active duty) reported the greatest percentage currently using the drug in question as reported currently using marijuana. The actual percentage, however, was smaller for all groups than was reported for marijuana. More generally, those with less than five years active duty reported a greater percentage currently using marijuana,

Table 14

Current Frequency of Usage of "Other Drugs" by Subject Groups

Frequency of Drug Usage	Subject Group (Percent)[a]								
	1	2	3	4	5	6	7	8	9
Tranquilizers									
Never	70.9	90.8	76.2	74.0	89.6	94.5	94.7	92.0	92.3
Seldom	8.3	2.9	5.2	8.9	2.3	0.8	1.3	1.5	3.5
Occas./Reg.	14.0	4.6	9.6	7.7	0.4	0.8	0.4	0.5	0.7
1/day to 2+/day	6.5	1.3	7.6	5.1	7.7	3.1	3.6	5.5	3.5
Depressants									
Never	63.5	89.9	75.9	72.8	88.8	95.3	95.1	92.8	95.8
Seldom	7.8	2.9	6.9	8.1	2.3	0.0	0.9	1.2	0.0
Occas./Reg.	22.2	5.5	9.3	9.4	1.2	0.8	0.4	0.0	0.7
1/day to 2+/day	6.1	1.3	5.8	5.5	7.7	3.1	3.6	5.7	3.5
Stimulants									
Never	59.1	87.0	73.8	64.7	87.3	95.3	91.1	92.5	95.1
Seldom	9.1	5.0	6.2	11.1	3.5	0.0	3.6	1.5	0.7
Occas./Reg.	22.2	5.9	10.0	14.0	1.5	0.0	1.7	0.2	0.7
1/day to 2+/day	8.7	2.1	8.3	5.1	7.7	3.9	3.6	5.5	3.5
Narcotics									
Never	70.9	91.2	78.6	72.8	90.0	95.3	95.6	93.3	96.5
Seldom	7.0	2.9	4.1	8.5	1.2	0.0	0.4	0.7	0.0
Occas./Reg.	12.6	2.9	6.9	9.8	1.2	0.0	0.4	0.2	0.0
1/day to 2+/day	8.7	3.0	8.6	4.7	7.7	3.9	3.6	5.5	3.5
Hallucinogens									
Never	67.0	87.0	71.7	65.1	87.7	95.3	95.1	93.0	96.5
Seldom	6.5	4.6	6.2	12.8	1.9	0.0	0.9	0.5	0.0
Occas./Reg.	17.4	6.7	12.4	12.8	1.7	0.0	0.4	0.5	0.0
1/day to 2+/day	7.8	1.2	7.9	4,7	7.7	3.9	3.6	5.7	3.5
Inhalants									
Never	76.5	93.7	82.4	81.3	91.9	95.3	96.0	93.0	96.5
Seldom	9.6	1.7	2.4	3.8	0.4	0.0	0.0	0.5	0.0
Occas./Reg.	7.8	2.5	5.2	6.4	0.0	0.8	0.4	0.7	0.0
1/day to 2+/day	5.6	2.1	8.3	3.8	7.7	3.1	3.6	5.5	3.5

[a]See Table 1. Percentages within drug categories do not necessarily total 100.0% because some of the subjects failed to respond to the items. The percentages are based upon the total number of subjects in each subject group.

Table 15

Current Frequency of Alcohol Usage and Time on Active Duty

Frequency of Alcohol Usage	Time on Active Duty (Percent)					
	⩽4 mos	5 mo–2 yrs	2–5 yrs	5–10 yrs	10–15 yrs	Over 15 yrs
Never	13.8	15.6	10.6	7.2	10.9	7.4
Seldom	10.5	13.6	9.4	6.0	10.2	13.8
Occasionally	33.1	32.4	34.5	37.3	34.0	36.0
Regularly	32.1	25.3	28.9	34.5	31.3	28.6
1 time/day	6.4	5.7	7.7	8.8	10.2	9.5
2+ times/day	4.2	7.4	8.8	6.3	3.4	4.8

Table 16

Current Frequency of Marijuana Usage and Time on Active Duty

Frequency of Marijuana Usage	Time on Active Duty (Percent)					
	⩽4 mos	5 mo–2 yrs	2–5 yrs	5–10 yrs	10–15 yrs	Over 15 yrs
Never	67.9	53.3	66.5	89.9	92.5	94.1
Seldom	11.3	14.3	11.0	4.1	1.4	0.5
Occasionally	10.8	15.5	8.9	1.3	0.7	0.5
Regularly	5.9	10.2	6.5	0.3	0.7	0.5
1 time/day	0.9	1.6	1.2	0.3	0.0	0.0
2+ times/day	3.3	5.1	5.9	4.1	4.8	4.3

tranquilizers, stimulants, narcotics, or hallucinogens than was reported by the groups with five years or more time on active duty. This is not the case with alcohol, however, as was indicated earlier (see Table 15).

USAGE BY RACIAL GROUP

The frequency of current alcohol usage is shown for three racial categories in Table 18. White personnel reported a slightly larger percentage (88.9%) using alcohol currently to some extent than did personnel in the other two racial categories. Personnel in the "Other" category reported the largest percentage (16.7%) currently using alcohol on a daily basis ("1 time/day" or "2 or more times/day").

The relationship of racial group and reported frequency of current marijuana usage presented in Table 19 differs from that shown in Table 18 for current alcohol usage. Personnel in the "Black" racial group reported the largest percentage (41.4%) currently using marijuana to some extent. This group also reported the largest percentage (9.2%) currently using marijuana on a daily basis while personnel in the "White" category reported the smallest percentage (26.0%) currently using marijuana to some extent as well as the smallest percentage (4.7%) currently using marijuana on a daily basis.

Table 17

Current Frequency of Usage of Four Drug Categories and Time on Active Duty

Frequency of Drug Usage	Time on Active Duty (Percent)					
	⩽ 4 mos	5 mo–2 yrs	2–5 yrs	5–10 yrs	10 - 15 yrs	Over 15 yrs
Tranquilizers						
Never	86.6	79.1	83.9	93.1	92.5	92.0
Seldom	3.0	8.4	4.8	0.6	0.7	2.7
Occas./Reg.	6.0	7.0	4.8	0.9	1.4	0.5
1/day to 2+/day	4.3	5.6	6.5	5.3	5.4	4.8
Stimulants						
Never	82.6	72.7	77.7	92.8	93.2	94.7
Seldom	5.2	9.3	6.5	0.9	0.0	0.0
Occas./Reg.	7.0	11.4	8.9	0.6	2.0	0.5
1/day to 2+/day	5.2	6.5	6.8	5.7	4.8	4.8
Narcotics						
Never	86.9	81.2	83.7	93.7	93.2	94.7
Seldom	3.3	5.1	4.2	0.6	0.0	0.0
Occas./Reg.	4.6	7.2	5.3	0.0	0.7	1.1
1/day to 2+/day	5.2	6.5	6.8	5.7	6.1	4.3
Hallucinogens						
Never	83.9	74.4	81.3	93.4	93.2	94.7
Seldom	4.0	7.7	5.3	0.3	0.7	0.0
Occas./Reg.	7.5	11.7	6.8	0.6	1.4	0.5
1/day to 2+/day	4.6	6.3	6.5	5.7	4.8	4.8

Table 18

Current Frequency of Alcohol Usage by Racial Group

Frequency of Alcohol Usage	Racial Group (Percent)		
	Black	White	Other
Never	15.5	11.2	18.3
Seldom	11.7	10.3	15.0
Occasionally	33.9	34.2	28.3
Regularly	24.3	31.2	21.7
1 time/day	6.3	7.8	5.0
2+ times/day	8.4	5.4	11.7

Table 19

Current Frequency of Marijuana Usage by Racial Group

Frequency of Marijuana Usage	Racial Group (Percent)		
	Black	White	Other
Never	58.6	74.0	63.3
Seldom	13.0	8.6	11.7
Occasionally	11.7	8.1	6.7
Regularly	7.5	4.6	13.3
1 time/day	3.3	0.5	0.0
2+ times/day	5.9	4.2	5.0

INITIAL USE OF DRUGS

The relationship between current frequency of alcohol usage and the time when alcohol was first tried is presented in Table 20. Of those personnel who reported first trying alcohol when in vocational or trade school, 35.0% reported currently using alcohol on a daily basis. This was the largest percentage of any of the "when first tried" groups reporting daily usage of alcohol. Of those who reported first trying alcohol after they entered the Army, only 10.5% reported currently using alcohol on a daily basis, while over two-thirds (68.6%) of this group reported currently using alcohol on an occasional or less frequent basis. Generally speaking, regardless of time of first use of alcohol (excluding the "never tried" group), the percentage in each category increased as the frequency of current alcohol usage increased from "Never" up to "Occasionally" or "Regularly" and decreased again as the frequency of usage approached "2 or more times/day."

Table 20

Current Frequency of Alcohol Usage and Time When Alcohol Was First Tried

Frequency of Alcohol Usage	"Time When First Tried" Group (Percent)								
	Before School	Grade School	Junior High	High School	During College	In Voc. Tr. Sch.	Before Army	After Army	Never Tried
Never	6.9	8.9	8.6	7.4	7.8	25.0	13.8	7.0	79.8
Seldom	11.5	9.8	12.2	9.0	10.6	0.0	18.4	15.1	4.0
Occasionally	27.6	31.8	34.7	37.1	38.3	15.0	36.8	46.5	7.1
Regularly	31.0	30.6	30.8	35.4	29.8	25.0	25.3	20.9	2.0
1 time/day	16.1	7.8	8.1	6.8	7.1	30.0	3.4	4.7	2.0
2+ times/day	6.9	11.0	5.6	4.3	6.4	5.0	2.3	5.8	5.1

The relationship between reported current frequency of marijuana usage and time when marijuana was first tried is shown in Table 21. Those who first tried marijuana during junior high or during high school reported the greatest percentages (77.4 and 71.2%, respectively) currently using marijuana to some extent. Those who tried marijuana before school reported the largest percentage (28.6%) currently using marijuana two or more times/day. With the exception of the "Never Tried" group, this group (those who tried marijuana before school) also reported the greatest percentage (57.1%) currently *not* using marijuana.

Table 21

Current Frequency of Marijuana Usage and Time When Marijuana Was First Tried

Frequency of Marijuana Usage	"Time When First Tried" Group (Percent)								
	Before School	Grade School	Junior High	High School	During College	In Voc. Tr. Sch.	Before Army	After Army	Never Tried
Never	57.1	44.0	22.6	28.8	42.3	43.5	37.4	46.1	95.2
Seldom	0.0	12.0	17.4	17.8	29.5	17.4	27.3	25.6	0.2
Occasionally	14.3	16.0	22.6	26.4	18.8	26.1	16.2	18.7	0.4
Regularly	0.0	12.0	23.5	20.2	5.4	13.0	10.1	5.5	0.4
1 time/day	0.0	4.0	6.1	1.9	0.7	0.0	4.0	0.5	0.0
2+ times/day	28.6	12.0	7.8	4.8	3.4	0.0	5.1	3.7	4.0

INTENDED FUTURE USE OF DRUGS

Data concerning intentions of future alcohol usage as a function of reported current frequency of alcohol usage are shown in Table 22. Over half (59.9%) of those currently *not* using alcohol reported that they also intended not to use alcohol in the future. Over 70% of those currently using alcohol on an occasional or more frequent basis reported that they intended to continue their alcohol use in the future. The group with the greatest percentage who intended to stop using alcohol in the future (18.2%) was the group currently using alcohol only once or twice a year ("Seldom"). Less than 5% of those currently using alcohol on a daily basis reported the intention to stop using alcohol in the future.

The intentions for future marijuana usage as a function of reported current frequency of marijuana usage are shown in Table 23. Of those who currently use marijuana once a day, 88.9% reported that they intend to continue using marijuana in the future. This was the largest percentage reporting that they intended to continue using marijuana in the future. The remainder of this group (11.1%) reported the intention to reduce marijuana usage in the future. Of those who currently do *not* use marijuana, 83.9% reported that they would never try marijuana in the future. Of the personnel who reported currently using marijuana on a regular or one time/day basis, less than 3% ("Regularly"—2.7%; "1 time/day"-0.0%) reported the intention to stop using marijuana in the future. In contrast, 28.7% of those who reported currently using marijuana on a "Seldom" basis reported the intention to stop using marijuana in the future.

Table 22

Intended Future Usage of Alcohol as a Function of Current Frequency of Usage

Intended Future Use of Alcohol	Current Frequency of Alcohol Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Continue to use	12.2	30.1	71.5	81.4	76.9	77.2
Use less than now	5.9	29.7	19.5	12.1	15.0	9.5
Start using or try	3.9	4.9	1.1	1.1	3.1	3.9
Stop using	14.2	18.2	5.2	3.3	2.5	4.7
Never try	59.9	14.2	1.7	1.3	1.9	4.7

Table 23

Intended Future Usage of Marijuana as a Function of Current Frequency of Marijuana Usage

Intended Future Use of Marijuana	Current Frequency of Marijuana Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Continue to use	2.5	33.9	64.7	68.5	88.9	37.2
Use less than now	2.1	20.0	16.6	10.8	11.1	3.2
Start using or try	3.7	4.6	6.1	5.4	0.0	3.2
Stop using	5.5	28.7	8.3	2.7	0.0	3.2
Never try	83.9	10.3	2.2	8.1	0.0	52.1

The reported intentions for future usage of "Other Drugs" as a function of reported current usage of tranquilizers, stimulants, narcotics, and hallucinogens are shown in Table 24. In the majority of instances, less than 20% of those who were currently using drugs indicated the intention to stop using these drugs in the future. In the majority of cases, over 30% of those currently using drugs indicated that they intended to continue using drugs in the future. The general trend in reported intentions of future drug usage is similar for each of the four drug categories presented in Table 24. A very noticeable inconsistency in responses was noted, however, for the group indicating current drug usage two or more times/day. For each of the four drug categories in Table 24, 65% or more of this group reported the intention of never trying these drugs in the future. If this response implies that they have never tried these drugs, this represents a considerable contradiction to their reported frequency of current usage of these drugs. In each instance, the size of this group is 95 or more persons or slightly more than 4% of the entire sample of 2,149 respondents. For this reason, the data regarding this group of respondents (those reporting current usage two or more times/day) should be interpreted with caution, if interpreted at all, since there is such a strong possibility indicated that their responses may have been response errors.

Table 24

Intended Future Usage of "Other Drugs" as a Function of Current Drug Usage for Four Categories of "Other Drugs"

Intended Future Use of "Other Drugs"	Current Frequency of Drug Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Tranquilizers						
Continue to use	4.4	36.2	41.5	42.9	43.8	7.4
Use less than now	2.5	12.1	13.2	14.3	12.5	7.4
Start using or try	1.9	7.2	11.3	1.9	18.8	3.2
Stop using	6.0	15.7	15.1	14.3	6.3	2.1
Never try	67.2	25.3	13.2	9.5	12.5	67.4
Stimulants						
Continue to use	2.4	37.6	49.4	42.0	41.7	9.3
Use less than now	1.8	17.8	15.0	10.0	25.0	4.1
Start using or try	1.5	7.9	6.9	14.0	20.8	3.1
Stop using	5.3	18.8	16.1	14.0	12.5	2.1
Never try	70.2	14.9	8.1	14.0	0.0	68.1
Narcotics						
Continue to use	4.8	37.1	35.9	41.9	43.5	10.0
Use less than now	2.2	29.0	13.2	0.0	8.7	8.0
Start using or try	1.7	11.3	11.3	12.9	17.4	4.0
Stop using	6.0	11.3	22.7	9.7	17.4	1.0
Never use	67.3	9.7	7.6	22.6	13.1	65.0
Hallucinogens						
Continue to use	2.8	32.5	54.6	43.2	53.0	9.1
Use less than now	1.9	21.7	17.1	4.6	11.8	5.1
Start using or try	1.7	8.4	6.8	13.6	23.5	4.1
Stop using	5.6	24.1	9.1	18.2	0.0	2.0
Never try	69.3	9.6	9.1	18.2	5.9	67.7

STOPPING DRUG USAGE

The reasons indicated for stopping alcohol usage as a function of reported frequency of the *greatest extent* of alcohol usage are indicated in Table 25. In all groups except the "Never" group, the largest percentage indicated that they have not stopped using alcohol. In all groups, less than 2% indicated that education programs or books, papers, magazines, or pamphlets were the reason for stopping alcohol use. Generally speaking, for those who used alcohol at one time but have since then stopped, the major reasons for their stopping have been experiences they have had, problems they have seen others have, loss of the desire to use alcohol, and to a lesser extent, pressure from family or friends. For those who reported using alcohol two or more times/day but who have now stopped, the major reason for stopping was a reported lack of money. However, of those who used alcohol occasionally or more frequently, 75% or more indicated that they have *not* stopped using alcohol.

Table 25

Reasons for Stopping Alcohol Usage by Frequency of Greatest Extent of Alcohol Use

Reasons for Stopping Alcohol Usage	Frequency of Greatest Extent of Alcohol Use (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Experiences I have had	10.3	11.8	4.2	3.2	2.9	3.8
Problems I have seen others have	3.4	11.8	2.5	2.4	3.9	1.9
Pressure from family or friends	0.9	2.5	1.0	1.2	2.4	2.4
Pressure from employer/ commander	0.0	0.4	0.4	0.4	1.9	1.4
Pressure from the law	0.0	1.3	0.6	0.4	0.5	0.0
Lack of money	0.0	0.0	1.3	2.1	1.9	4.3
Education programs I have seen	1.7	0.4	0.2	0.0	0.0	0.0
Books, papers, magazines, pamphlets	0.0	1.3	0.0	0.2	0.0	0.0
Lost desire to use alcohol	1.7	14.3	6.5	2.1	1.9	1.0
Other reasons not stated here	0.9	12.7	4.0	2.6	1.9	1.4
I have not stopped alcohol use	3.4	28.7	75.1	83.2	79.6	76.9
I have never used alcohol	76.1	12.7	2.0	1.5	1.5	5.2

The data regarding reported frequency of *greatest extent* of marijuana usage and reasons for stopping the use of marijuana are shown in Table 26. Again, there is a strong indication of error in the responses of the group who reported using marijuana two or more times/day at their *greatest* extent. Almost half (41.9%) the respondents in that group also reported never having used marijuana—an obvious contradiction. An equal number reported that they had not stopped using marijuana. This group, therefore, should be viewed very cautiously in drawing conclusions from the data. For the remaining four groups of respondents reporting some use of marijuana in the past, the greatest percentage stated that they had not stopped using marijuana. However, of those reporting use of marijuana on a "Seldom" basis, an almost equal number (25.6%) reported stopping because they lost the desire to use marijuana as reported they were still using the drug.

For marijuana, as for alcohol, less than 2% in any of the groups indicated education programs as a reason for stopping. Likewise, less than 2% indicated reading books, papers, magazines, or pamphlets as a reason for stopping. Those who had stopped using marijuana indicated that experiences they have had, a loss of desire to use marijuana, pressure from family or friends, problems they have seen others have, and other reasons not listed were the major reasons for their stopping marijuana use. The reasons for stopping marijuana use and those for stopping alcohol use (Table 25) seem to be much the same and do not include educational programs or literature. In most cases, however, over 50% of those who have used marijuana have *not* stopped using marijuana.

The reasons for stopping the usage of drugs other than alcohol or marijuana are shown in Table 27 for the entire sample. The majority of the respondents (73.7%) indicated that they had never used these drugs, while 9.2% reported that they had *not* stopped using these drugs. The reasons given by most of those who had stopped using these drugs were experiences they had had, problems they had seen others have, loss of the desire to use the drugs, and pressure from family and friends. An additional 2.5%

indicated that other reasons not stated in the questionnaire were responsible for their discontinuing use of these drugs. The two reasons for discontinuing that were given *least* often were educational programs (0.2%) and written materials (0.3%).

Table 26

Reasons for Stopping Marijuana Usage by Frequency of Greatest Extent of Marijuana Use

Reasons for Stopping Marijuana Use	Frequency of Greatest Extent of Marijuana Use (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Experiences I have had	1.0	6.3	5.1	4.2	2.0	3.9
Problems I have seen others have	0.9	7.0	4.1	1.4	4.0	0.8
Pressure from family or friends	0.6	1.7	3.6	7.8	10.0	0.8
Pressure from employer/ commander	0.2	1.0	3.1	3.8	4.0	0.8
Pressure from the law	0.3	3.0	2.1	2.1	2.0	1.6
Lack of money	0.0	1.0	3.6	0.7	4.0	3.1
Education programs I have seen	0.0	1.3	1.5	1.4	0.0	0.0
Books, papers, magazines, pamphlets	0.2	0.7	0.0	0.7	0.0	0.0
Lost desire to use marijuana	1.5	25.6	5.6	4.9	2.0	1.6
Other reasons not stated here	0.9	14.3	3.1	2.8	6.0	0.0
I have not stopped marijuana use	0.9	26.3	64.8	64.8	60.0	41.9
I have never used marijuana	92.4	11.6	2.6	3.5	4.0	41.9

Table 27

Reasons for Stopping the Usage of Drugs Other Than Alcohol or Marijuana: Entire Sample

Reasons for Stopping "Other Drug" Usage	Entire Sample (Percent)
Experiences I have had	3.0
Problems I have seen others have	2.8
Pressure from family or friends	1.9
Pressure from employer/commander	0.8
Pressure from the law	0.7
Lack of money	0.8
Education programs I have seen	0.2
Books, papers, magazines, pamphlets	0.3
Lost desire to use these drugs	2.4
Other reasons not stated here	2.5
I have not stopped using these drugs	9.2
I have never used these drugs	73.7

Existence of a problem and desire for help are shown in Table 28 as a function of frequency of current usage for alcohol, marijuana, and three "Other Drug" categories. Regarding alcohol usage, two-thirds or more of the respondents in each frequency of usage category indicated that they did *not* have an alcohol problem. For the most part, of those indicating that they did have an alcohol problem, the larger portion stated that they did *not* want help. The usage category with the smallest percentage (4.4%) indicating that they had a problem was the "Occasional" alcohol usage group. The group with the largest percentage indicating that they had a problem (29.1%) was the group reporting current alcohol usage "2 or more times/day."

Table 28

Existence of a Problem and Desire for Help as a Function of Current Frequency of Usage for Alcohol, Marijuana, and Three "Other Drugs"

Existence of Problem/ Desire for Help	Current Frequency of Drug Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Alcohol						
Have Problem/Want Help	6.7	4.0	1.9	3.3	4.4	12.6
Have Problem/Do Not Want Help	4.7	6.6	2.5	5.3	8.8	16.5
Do not have problem	87.4	87.6	94.8	90.8	86.3	67.7
Marijuana						
Have Problem/Want Help	2.1	2.1	2.2	9.0	5.6	5.3
Have Problem/Do Not Want Help	1.4	8.2	14.4	18.9	27.8	9.6
Do not have problem	95.4	87.7	81.8	69.4	66.7	83.0
Other Drugs (Depressants)						
Have Problem/Want Help	1.8	5.2	13.3	11.4	9.1	7.3
Have Problem/Do Not Want Help	1.7	19.5	25.3	22.7	27.3	5.2
Do not have problem	87.1	72.7	58.7	63.6	54.6	76.1
Other Drugs (Stimulants)						
Have Problem/Want Help	1.6	3.0	12.7	16.0	12.5	6.2
Have Problem/Do Not Want Help	1.2	18.8	17.3	28.0	37.5	6.2
Do not have problem	87.7	75.3	64.4	52.0	50.0	77.3
Other Drugs (Narcotics)						
Have Problem/Want Help	1.6	8.1	13.2	22.6	17.4	6.0
Have Problem/Do Not Want Help	1.8	21.0	26.4	25.8	30.4	9.0
Do not have problem	87.3	69.4	56.6	45.2	52.2	74.0

In each category of current frequency of marijuana usage, two-thirds or more of the respondents reported that they did not have a marijuana problem. The group reporting no current usage of marijuana had the smallest percentage (3.5%) indicating the presence of a marijuana problem, while those currently using marijuana "1 time/day" had the largest percentage (33.4%) indicating the presence of a problem. As with alcohol, the majority of those indicating the presence of a problem also indicated that they did *not* want help with that problem.

For the remaining three drug categories, the results are similar to those for marijuana, but with a larger percentage indicating the presence of a problem. In only one

instance ("Regular" users of narcotics) did less than 50% of the respondents report that they did *not* have a drug problem.

In Table 29, the data regarding those facilities the men said they *would* use if they had a drug problem are shown for the frequency of current usage categories for alcohol and marijuana. For both alcohol and marijuana, less than 40% of the men in each of the usage categories indicated that they would use an education center facility if they had a problem. In addition, for alcohol as well as marijuana, the group currently using the drug one time/day reported the *smallest* percentage who *would* use this facility. For alcohol, the facility that would be used by the largest percentage of each usage category was a medical treatment facility. This was also true for marijuana in all usage groups except "Regular" and "1 time/day" users, where the largest percentage favored a "rap house" rather than medical treatment facility.

Table 29

Percentage of Current Frequency of Usage Category Who Would Use Various Facilities in Event of Alcohol or Marijuana Problem

Facilities that *would* be used	Current Frequency of Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Alcohol						
Chaplains	53.9	49.6	59.7	50.5	46.3	48.8
Counseling	52.0	58.9	64.1	63.2	60.0	47.3
Education Center	39.4	38.9	36.7	39.0	29.4	32.3
Live-In Treatment	42.1	42.9	36.6	33.4	27.5	30.7
Medical Treatment	59.5	63.3	71.9	69.9	63.1	52.0
Mental Health Clinic	49.6	50.0	51.7	49.4	48.1	40.2
Rap House	35.0	48.2	39.5	41.3	31.3	35.4
Marijuana						
Chaplains	56.6	49.8	49.2	37.8	16.7	44.7
Counseling	63.5	53.9	54.7	54.1	44.5	47.9
Education Center	39.0	39.5	32.1	29.7	11.1	25.5
Live-In Treatment	37.0	32.8	33.7	38.7	22.2	27.7
Medical Treatment	70.6	60.5	59.7	55.9	27.8	57.5
Mental Health Clinic	53.4	40.5	38.1	46.0	22.2	37.2
Rap House	34.9	42.6	57.5	72.1	61.1	33.0

Generally speaking, the preferred facilities for alcohol problems were medical treatment, counseling facilities, and chaplains or mental health clinics in that order. For marijuana problems, the preferred were medical treatment or rap house, followed by counseling facilities.

The data concerning facilities that would be used for drug problems with stimulants, narcotics, or hallucinogens are shown for each frequency of current usage category in Table 30. The pattern of facilities preferred by the different frequency of usage groups is quite similar for each of the three drug categories. For those who currently never use these drugs or use them "Seldom," the largest percentage of respondents prefer a medical treatment facility. The only exception to this finding is the choice of "Seldom" users of narcotics, who preferred counseling rather than medical treatment. In addition, the

Table 30

Percentage of Current Frequency of Usage Category Who Would Use Facilities for Stimulant, Narcotics, or Hallucinogen Problem

Facilities that *would* be used	Current Frequency of Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Stimulants						
Chaplains	56.0	42.6	34.5	46.0	45.8	42.3
Counseling	62.2	62.4	48.3	54.0	33.3	50.5
Education Center	38.5	34.7	23.0	38.0	33.3	29.9
Live-In Treatment	36.6	33.7	29.9	46.0	37.5	25.8
Medical Treatment	69.3	62.4	51.7	50.0	29.2	66.0
Mental Health Clinic	51.6	43.6	33.3	38.0	25.0	46.4
Rap House	36.6	57.4	66.7	68.0	58.3	32.0
Narcotics						
Chaplains	55.0	45.2	45.3	48.4	21.7	44.0
Counseling	62.0	62.9	43.4	48.4	47.8	48.0
Education Center	38.2	30.7	37.7	32.3	17.4	29.0
Live-In Treatment	36.2	35.5	35.9	41.9	60.9	24.0
Medical Treatment	68.6	51.6	51.0	45.2	56.5	67.0
Mental Health Clinic	50.6	38.7	43.4	45.2	39.1	45.0
Rap House	37.8	59.7	67.9	64.5	69.6	31.0
Hallucinogens						
Chaplains	55.4	50.6	42.1	38.6	29.4	42.4
Counseling	62.3	51.8	50.0	61.4	23.5	50.5
Education Center	38.6	34.9	29.6	25.0	29.4	27.3
Live-In Treatment	36.0	33.7	37.5	40.9	41.2	30.3
Medical Treatment	69.1	59.0	46.6	59.1	11.8	67.7
Mental Health Clinic	51.2	38.6	39.8	45.5	23.5	44.5
Rap House	37.0	55.4	69.3	68.2	58.8	31.3

responses of those who currently use these drugs two or more times/day are quite similar to the responses of the "Never" or "Seldom" usage groups. However, the validity of the responses of this group ("2 or more times/day") has been questioned in data presented earlier and they will therefore not be included in the discussion of these data. The fact that their responses follow the same pattern as those of the "Never" or "Seldom" groups, while the groups using drugs more heavily present a different pattern, would further indicate the possibility of response error in the "2 or more times/day" group. Those currently using these drugs occasionally, or more frequently, appear to prefer the rap-house facility over the other facilities, including medical treatment.

The pattern of responses for these drug categories is quite similar to the pattern of responses for marijuana, and different from that for alcohol use. While all frequency of usage groups for alcohol seemed to prefer medical treatment facilities, only the "Never" and "Seldom" frequency groups did so for marijuana, stimulants, narcotics, and hallucinogens. Those using marijuana regularly or one time/day, and those using stimulants, narcotics, or hallucinogens occasionally or more frequently preferred rap-house facilities

over medical treatment. The most frequently chosen facility in all cases was chosen by more than 50% of the usage group. In addition, in all cases, less than 40% of each usage group indicated that they would use an education center facility. Among those who currently use these drugs, including alcohol, to some extent, the percentage indicating that they would use an educational facility was even less. In addition, the *second least-chosen* facility, in most instances, was a live-in treatment facility.

In Table 31, the place where individuals learned most about drugs is shown for each category of frequency of current usage of alcohol, marijuana, and narcotics. Concerning alcohol, the largest percentage of each usage category indicated that books, papers, and pamphlets were the sources from which they learned most, followed closely by educational or school programs. In only two frequency of usage groups ("1 time/day" and "2 or more times/day") did more than 10% state that they learned most about alcohol from their own use of it.

Table 31

Where Respondents Learned Most About Drugs as a Function of the Current Frequency of Usage of Alcohol, Marijuana, and Narcotics

Where Learned Most About Drugs	Current Frequency of Usage (Percent)					
	Never	Seldom	Occas.	Reg.	1 time/day	2+ times/day
Alcohol						
Education or school program	27.2	20.8	24.7	23.5	15.0	18.9
Books, papers, pamphlets	29.9	34.5	38.0	39.8	41.3	30.7
Television	11.4	8.4	9.9	8.9	8.8	11.8
Seeing friends use them	6.7	7.1	4.3	5.3	6.3	4.7
What friends told me	4.3	6.2	5.8	8.2	7.5	4.7
From my own use of them	7.9	9.3	6.0	5.0	10.6	11.8
Other reasons not stated	10.6	12.4	10.4	8.4	10.0	17.3
Marijuana						
Education or school program	25.9	20.0	13.3	12.6	5.6	17.0
Books, papers, pamphlets	40.0	30.8	35.9	21.6	11.1	28.7
Television	10.6	5.1	6.1	6.3	0.0	17.0
Seeing friends use them	3.5	15.0	7.7	8.1	16.7	4.3
What friends told me	6.7	10.3	3.3	2.7	5.6	5.3
From my own use of them	1.8	9.2	21.6	37.8	61.1	12.8
Other reasons not stated	10.8	7.7	10.5	7.2	0.0	14.9
Narcotics						
Education or school program	24.2	9.7	15.1	12.9	13.1	19.0
Books, papers, pamphlets	38.9	27.4	17.0	19.4	8.7	34.0
Television	9.3	8.1	13.2	16.1	13.1	14.0
Seeing friends use them	4.9	11.3	13.2	6.5	4.4	5.0
What friends told me	6.7	1.6	0.0	6.5	17.4	5.0
From my own use of them	4.8	32.3	32.1	22.6	30.4	7.0
Other reasons not stated	10.3	6.5	7.6	6.5	13.1	16.0

The data regarding marijuana and narcotics present a different response pattern from that concerning alcohol. Except for those using marijuana or narcotics two or more times/day, as the frequency of use of the drug increases the percentage of the group indicating books, papers, or pamphlets as the source of most knowledge about the drugs decreases. In other words, as the frequency of usage increases, the information obtained from written materials becomes *less* important as a source of information about marijuana or narcotics. Instead, it appears that learning from their own use of these two drugs becomes more a source of information as their use is increased. Over 60% of those using marijuana one time/day indicated their own use of the drug as the major source of information, while only 9.2% of the "Seldom" users of marijuana indicated personal experiences as the major source of knowledge about the drug.

DISCUSSION

From the data in Table 5 and Figure 1, it is evident that among the drugs surveyed alcohol is by far the most widely used. More people used alcohol on a regular or more frequent basis (43%) than used marijuana at all (27.9%). Of the total sample, 13% currently use alcohol on a daily basis, while less than 6% used any of the other drugs, including marijuana, on a daily basis. To the extent that daily alcohol use may constitute a possible drinking problem, the fact that there are twice as many "daily" users of alcohol as "daily" users of any of the other drugs indicates that alcohol use is a major drug problem.

Marijuana use was the next most common form of drug use evidenced by the sample. There were almost twice as many current marijuana users as there were users of any of the remaining drug categories. The amount and pattern of usage of the remaining drugs were quite similar among the drug categories. In addition, the pattern of usage was quite similar to that for marijuana users, although at a reduced percentage of the sample. From the data, the patterns of alcohol usage were different from those of the other drugs and appeared to constitute a distinct and separate problem of drug use.

The percentage of personnel who reported current alcohol usage was higher in the older age groups than in the two youngest age groups (see Table 6). In addition, a greater percentage of the two oldest age groups indicated current alcohol usage on a one time/day basis than did those in the younger age groups. However, the 25- to 29-year-old age groups reported the largest percentage (8.2%) using alcohol two or more times/day.

On the other hand, a greater percentage of the young age groups reported some usage of marijuana (see Table 8). The under-30 age groups also reported larger percentages using marijuana at all frequencies except the "2 or more times/day" category. Excluding persons in this category ("2 or more times/day"), the data concerning age and frequency of marijuana usage would suggest that marijuana users are predominantly under 30 years of age, whereas alcohol users are more likely to be in the 25 years and over age range.

Although the age relationship to current usage of the remaining six drug categories (tranquilizers, depressants, stimulants, narcotics, hallucinogens, and inhalants) is similar to that for marijuana usage, there are some noteworthy differences (see Table 10). The current usage of tranquilizers, depressants, and stimulants appears to occur predominantly in the under-30 age groups, as was the case with marijuana. However, narcotics, hallucinogens, and inhalants seem to be used mostly by the under-25 age groups—chiefly confined to even younger age groups than is marijuana. In these instances, as with marijuana, the only exception is the "2 or more times/day" group, and their data are being interpreted with caution since they are of uncertain validity. The responses of those using drugs two or more times/day appear to indicate that among older age groups (over

35), those who use the drugs at all use them on a daily basis. There seems to be almost no usage at the frequency levels between "Never" and "2 or more times/day" for these age groups. Essentially, there appears to be no "experimentation" with these drugs at these age levels, whereas the under-30 age groups reported some percentage using the drugs at each frequency of usage level.

In terms of alcohol usage, a smaller portion of those who have had only a high school education or less reported using alcohol on an occasional or more frequent basis (Table 7). Regular alcohol usage tends to be more common among those with better than a high school education. However, usage of alcohol two or more times/day is reported by a larger proportion of those with less than a high school education, even though over 50% of those with graduate degrees report using alcohol on a regular or more frequent basis.

With educational level, as with age level, alcohol use patterns differ from those for marijuana use (see Table 9). The higher educational levels reported a smaller portion using marijuana to some extent than did the lower educational levels. One-third of those with some high school or only an eighth grade or less education reported using marijuana while less than 15% of those with education beyond college undergraduate level reported some use of marijuana. The data indicate that not only do those with no college education report more users of marijuana, they also report more users at the daily frequency of usage levels.

The same basic pattern occurs for the six "Other Drug" categories (tranquilizers, depressants, etc.) as occurred for marijuana use. The higher educational levels (those with at least *some* college education) are less likely to be users of these drugs when dealing with samples similar to that surveyed in this study. The "2 or more times/day" usage category provides the only exception, and this must be interpreted cautiously for the reasons mentioned earlier.

Although the temptation exists to interpret these data as meaning older persons with college educations are less likely to use drugs other than alcohol, this interpretation is not justified. It is possible that age or educational level alone is responsible for these results, since there is probably *some* relationship between age and educational level. Those respondents who are under 21 years of age are quite unlikely to have completed college. Those who are in the 17-18 age range probably have had *no* college education. In addition, those who are over 35 have most likely completed high school or at least G.E.D. in order to advance in rank during their career in the Army. Field grade and company officers are certainly over 21 and have had at least some college. The interpretation of these results must, therefore, be limited to age and education separately as they relate to drug usage.

The data in Tables 12 and 13 provide additional evidence to indicate that alcohol use involves a distinctly different segment of the Army than does marijuana use. The officer-grade subject groups reported a larger percentage using alcohol to some extent than did the enlisted-grade subject groups. With marijuana use, however, the relationship was the reverse. The lower enlisted-grade groups reported a larger percentage using marijuana. In addition, the officer subject groups indicated greater usage of alcohol on a regular or more frequent basis than did the enlisted groups, while the reverse was true for marijuana use. The data concerning use of the six categories of "other drugs" was basically similar to that for marijuana use. Hence, the difference between alcohol use and marijuana use would appear to exist for alcohol and each of the six "other drugs."

This evidence suggests that when drug education programs are being presented, audiences mixed in terms of age, education, and grade would probably be less effective because some members would be more likely to have alcohol-related problems while others would be more likely to have other drug problems. When presenting the education program to an older, more highly educated audience of higher ranking personnel, it

would seem more advisable to place a greater emphasis on the alcohol portion of the presentation and utilize communicators who are older, more highly educated, and higher ranking.

On the other hand, presentations to a young audience with less education and of lower rank should emphasize the portions of the program related to drugs other than alcohol, and use younger, lower ranking communicators to assure the greatest amount of acceptance by audience members. This conclusion does not imply that alcohol should not be included as a drug when talking with younger audiences; nor should other drugs be excluded when talking with older audiences. The selection of communicators, lecturers, or instructors, however, should be based upon the composition of the audience and the problems they are most likely to experience—alcohol, or drugs other than alcohol.

The usage patterns of senior noncommissioned officers appear to be similar to those of commissioned officers for usage of drugs other than alcohol. The pattern of senior NCO usage of alcohol, however, is more similar to enlisted personnel than to officer patterns of alcohol use.

The survey data concerning time on active duty and frequency of current drug use (Tables 15, 16, 17) indicate that alcohol usage is greater among those with 5 years or more active duty, while usage of drugs other than alcohol is greater for those with less than five years active duty. The indications here are roughly similar to those preceeding for frequency of usage and subject group. Alcohol users are more often those with long-time service in the Army, while "other drug" users are more often those with short Army service.

The relationship between current frequency of alcohol use and the time when alcohol was first tried (Table 20) indicates generally that those who had tried alcohol at an early stage (before or during high school) reported current usage of alcohol at higher frequency. In addition, the data suggest that first trying alcohol after entering the Army does not lead to greater alcohol usage, but leads instead to a smaller portion using alcohol on a regular or more frequent basis. The regular or daily alcohol user therefore appears to be one who tried alcohol at an early stage and may have been using alcohol for some time. To some extent, the same seems to hold true for marijuana usage (Table 21). The data do *not* indicate that the marijuana user is one who began using marijuana in the service. Rather, they indicate that the more frequent user of marijuana first tried the drug prior to entering the Army and in many instances before or during high school.

The intentions for future usage of alcohol (Table 22) and marijuana (Table 23) indicate, somewhat discouragingly, that most of those currently using these drugs plan to continue using them in the future. Since one of the main purposes of drug education is to create an attitude or intention to reduce or discontinue drug usage in the future, this evidence points to an aspect of current drug usage that should be of serious concern to drug educators. This intention to continue usage in the future is less evident with regard to "other drugs" such as tranquilizers, stimulants, narcotics, and hallucinogens (Table 24). With these drugs, there is more indication that those currently using them intend to reduce or stop their usage in the future—an attitude favorable to successful drug education efforts. This may reflect a greater emphasis placed in drug education upon drugs such as narcotics, stimulants, and hallucinogens than upon alcohol and marijuana. As a result, these data may be an indication of some measure of success in the reduction of usage of "hard drugs."

The apparent success of drug abuse prevention efforts alluded to above is somewhat contradicted by the results concerning reasons for stopping the use of drugs (Tables 25, 26, 27). The overwhelming indication from these data is that education programs and written materials seem to have contributed little to an individual's decision to stop using drugs, including alcohol. The greatest proportion of those who have used drugs in the

past indicate that they have *not* stopped using them at present. Those who indicate that they have stopped cite personal experiences, loss of desire, experiences they have seen others have, and pressure from family or friends as the major reasons. It almost seems that those who have used drugs can be influenced to stop by any means *except* those directed at the reduction in drug usage—education programs and written materials.

Another major problem faced by drug educators appears to be the large percentage of current drug users who either do not consider that they have a problem or do not want help if they do (Table 28). In order for any voluntary educational or rehabilitation program to be effective, the drug user must desire the services available. If he feels he has no drug problem or does not want help, a drug user is not likely to seek the services available to him. The present results would indicate that such voluntary services are going to have only limited success in attracting the drug user. Those facilities that would be used in the event of a drug problem (Tables 29, 30) appear to be medical treatment, counseling, mental health clinics, chaplains, and rap-house facilities. Again, educational programs or centers do not seem to be the facilities to which drug users will turn.

The use of ex-addicts, peer group discussion, and personal experiences as aspects of drug prevention education programs is a means by which education programs can capitalize on this tendency. The data in Table 31 present a somewhat similar, but not identical, picture. For alcohol, the largest percentage of each usage category indicated written material as the source of most learning about alcohol. In the lower frequency of usage groups, the same was true for marijuana and narcotics. However, personal experiences were increasingly cited as the greatest source of learning in the higher frequency of current usage groups. These data indicate that education programs and written materials do contribute to drug education but primarily to those using the drugs at an infrequent level—perhaps experimenting but not committed to their use. The more frequent users appear to gain more knowledge about the drugs from their own experiences and less from education programs or drug literature.

If drug users are to seek help voluntarily, facilities that the drug user is willing to use must be available. First, however, a drug user must recognize that he has a drug problem, or he will not seek help at all. The current drug user, according to the results of the present study, does not usually see his drug usage as a problem. Those who do, frequently do not want any help. One of the major tasks faced by drug educators is, therefore, to get the drug user to realize he has a problem and to activate him to seek help.

Chapter 3

A REVIEW OF EXISTING CIVILIAN DRUG EDUCATION PROGRAMS

ANALYSIS OF PROGRAMS

In response to increasing drug abuse in the military, in schools, and in communities in general, a number of educational programs have been developed. While rehabilitation and treatment programs had been developed earlier, drug specialists felt that prevention was the only real hope in dealing with drug abuse. Prevention programs using an educational approach deal with the problem before it starts, while reliance on rehabilitation programs allows the undesired situation to occur. Once the situation arises, it is difficult, if not impossible, to reverse.

This second phase of PREVENT consisted of a review of 15 current drug education prevention programs. Current opinions of drug education specialists were also surveyed. Some suggestions based upon these opinions about drug education prevention programs are offered. It was felt that the sample of programs studied need not be large, but that it should represent different types of programs. Time requirements and other limits in the study prevented a larger sample from being obtained and made an in-depth analysis of any one program impractical. A list of the programs reviewed appears in Appendix A.

Dr. Helen H. Nowlis suggests that the basic questions an educational institution should ask before it initiates a drug education effort are: "For what?" "For whom?" "By whom?" "What?" (3)

The organization must specify its objectives in order to answer the question of education "For what?" Objectives may be long or short range and simple or complex. A simple short-range objective might be just to provide accurate information regarding drugs. A more complex objective would be to increase understanding between students and instructors. A longer-range objective might be to decrease drug abuse. Whatever objectives are selected, the organization and its representatives should be aware of possible implications of their decisions and the requirements necessary to accomplish these objectives, and they should be able to defend their position.

This study reviews the basic orientations of the programs, the audiences to whom the programs are directed, the individuals involved in the direction and presentation of the programs, and the methods used in training these individuals. The study also examines the comprehensiveness of the programs, the extent of individual participation and involvement, and the persuasive techniques, the instructional methods, and the media used. Suggestions are offered for a model program based upon the examination of these programs and a review of current literature on drug education. It should be pointed out that, although the programs reviewed were civilian programs, the approach, program characteristics, and conclusions are as applicable to military drug prevention education as they are to civilian.

ORIENTATION

In about half the programs surveyed, drug abuse prevention is considered as one element in a comprehensive general health program for the entire school system. In about

one-third of the programs, it is assumed primarily that people rather than drugs are the cause of the problem. This orientation emphasizes the individual growth and development of the participant, through such approaches as peer group discussion and decision-making. Although such programs have increased in recent years, they are still far fewer in number than those that just provide basic information on drugs. Other orientations used in programs include promoting better citizenship and better police-youth relationships. While these orientations are certainly desirable from an overall community goal standpoint, the semantics of referring to the program under such terms might be unacceptable to some people.

Individual growth and development as an orientation for a program is seen as very worthwhile by many specialists. For example, "rap sessions" have proved to be very conducive to an open exchange of ideas. This exchange is, however, not necessarily productive unless the ideas are based upon valid information. Information should be provided either before this type of program begins or during the introductory part of the program.

Although marijuana and narcotics abuse may be a stimulus for the development of a drug education program, a program orientation dealing with abuse of only these drugs may appear hypocritical to some students. Tobacco and alcohol are not illegal for adult use, but they are drugs and can be abused.

Both program objectives and orientation should reflect the drug situation in the civilian community as well as in the military, since the soldier interacts with civilians as well as military personnel.

AUDIENCE

According to Dr. Nowlis, the second question to be posed is "For whom shall the effort be made?" While programs exist at all different levels and are directed toward different populations, the most frequently and widely documented programs were for school students. In this review, 75% of the programs surveyed were centered in the schools, and the others were directed toward young school students. Most school systems started with a pilot program at one particular level rather than at all levels within the system. After their first experiences with the pilot program, the school system usually developed, or scheduled the development of, programs from kindergarten through grade 12. Barely more than one out of four school systems had completed curricula for all 13 grades. Specific aspects of programs were directed at parents and drug users in about one out of four programs, although most programs for young people were intended for the entire student body rather than for specific groups.

About two-thirds of the programs were presented to medium-sized classes ranging from 20 to 35 students. Some classes were broken into even smaller groups, and a few programs had provisions for individual counseling.

While school programs have an advantage over others by having a "captive audience," they have a far more important advantage than this. Dr. Marvin R. Levy, Director of the Drug Abuse Education Project, has suggested that attitudes and behavior patterns are developed during early childhood. If drug-abuse-oriented attitudes are allowed to develop while a child is in the elementary grades, these attitudes will be much harder to change when the child reaches secondary school. Desired attitudes and behaviors are much easier to instill in the elementary grades than they are to change in later years (4).

Although school students can be treated as a single population, they are certainly not a homogeneous group. Dr. Nowlis has suggested that five classes of students can be identified, with respect to their interest in use of psychoactive drugs (3). At least some, if not all, of these classes would seem to apply to the population in general.

One class has neither much interest nor knowledge of drugs; a second is somewhat knowledgeable, but does not have sufficient interest to have tried drugs; a third has considerable information on drugs, and has tried one or more drugs once or twice; the fourth group uses drugs with relative frequency, particularly on weekends and at social gatherings; the fifth class is so deeply involved with drugs that drugs and drug use are their predominant concern or activity, at least temporarily. It is likely that there are other classes of students in addition to the five suggested by Dr. Nowlis. It is possible that there are some regular or heavy users of drugs who possess no knowledge of drugs or are greatly misinformed.

Regardless of the perception of the drug problem by program planners, it is almost essential to use a pretest to discover the audience's knowledge and interest in drugs. The results of the pretest must be taken into account in developing the subsequent program.

Once the target audience's level of interest and knowledge of drugs is learned and the decision is made to concentrate the programs on them, environment must be considered. The soldier's home and civilian community social environment may be at least as important as the military community in the development of social attitudes and behavior. Family and community officials must assist in a drug abuse prevention effort if it is to be effective. The military community can only play a part in the total effort (5).

DIRECTION

School teachers and school officials were involved in the direction of virtually all the programs reviewed. In most communities, special drug abuse committees were established. Some of these committees were only responsible for advising the school board. Others were responsible for coordinating community activities in fighting drug abuse or for devising the drug education curricula in their communities.

In over one-third of the programs, students were included as coequal committee members. When committees were not established, students and teachers were sometimes involved in the direction of peer group programs. Community health officials were involved in the direction of two-thirds of the programs. Fewer programs involved students, and still fewer involved ex-addicts, other experts in the field of drug abuse, community social service officials, and community residents. The last groups were involved in the direction of about 25% of the programs.

John T. Lawler, Director of the drug program at the Monticello Central School, Monticello, New York, suggests that when students are to be the main target of a program, it is important that they be involved in both the planning and presentation phases. While other community resources may provide a greater breadth and depth of information, research has shown that including the members of a target group in the planning of a program causes the group to be more receptive to the presentation (6).

PRESENTATION

Teachers were involved in presenting the materials in three out of four programs, while community health officials and other specialists in the field of drug abuse were involved in presenting the materials in two out of three programs. Law enforcement officials, ex-addicts, and student volunteers were also involved in two out of three programs. While the selection criteria for teachers were not specified, some general criteria were suggested for the selection of "resource persons" from different agencies. The resource person should represent the official position of his agency, possess the experience to speak authoritatively concerning the agency's scope of operation, be as

informed as possible in matters of drug abuse in his own area of concern, be willing and able to engage in group discussion with instructors and participants and to substantiate his statements, and accept the philosophy of the drug abuse education program.

Some difficulty may occur when the philosophy of a program emphasizes acceptance of a particular value system rather than the objective analysis of problems and the presentation of all relevant factual information. Introducing speakers to reinforce a particular value system will probably fail to affect the participants who are most in need of drug information.

There is some disagreement on whether or not ex-addicts should be used in prevention programs. In general, students preferred presentations by ex-addicts over all other resource persons (7). It was felt that the experience of the addict made him the only truly credible person in the program. Dr. Allen Y. Cohen, a specialist on problems resulting from the use of psychedelic drugs suggests that the psychedelic ex-user (rather than the ex-addict) can be particularly helpful in an educational program. Assuming that the psychedelic ex-user is emotionally stable and possesses an ability to articulate, he can be very effective as a communicator, as a liaison between the program planners and the participants, as an advisor to the program staff, or as an informal counselor for some of the participants who would not ordinarily be influenced by other types of programs (8).

The use of an ex-addict in a direct role may result in problems with some immature audiences. For example, when the ex-addict is able to express himself freely and clearly, an effect opposite to that desired may occur. Some participants may conclude that the use of drugs has helped this individual to be open and full of insight. Others may want to emulate the addict to such an extent that they aspire to become ex-addicts someday (6).

The answer to Dr. Nowlis' question, education "By whom?", is dependent upon the available resources and the maturity of the audience. If it were felt inappropriate to use representatives of any of the above groups (e.g., ex-addicts, law enforcement officials, members of the target audience) in presenting the material, a useful alternative would be to use them for consulting purposes.

TRAINING OF PERSONNEL

On-site training by an individual who has attended an extensive training program, university courses, seminars, or workshops is used in about half the programs for training personnel. These individuals have been especially trained to train instructors for drug abuse education programs. In addition to providing accurate information on drugs, they can also assist in developing communication techniques. In some programs, entire packages were developed for the group leaders and instructors, while only a curriculum guide with some references and suggestions was given in others.

In New Jersey, three workshops were held for teachers in an effort to reach some conclusions on teacher training for drug education programs (9). It appeared that school administrations in the past had predominantly selected physical education and health teachers for the key roles in the school's drug education program. Given the complexities and facets of drug abuse prevention, it was considered questionable to assume that one segment of the faculty is best suited for the task. The teacher in a drug abuse prevention program has many roles to play, including teaching, coordinating the program, detecting student drug abuse, or being a "drug ombudsman." In selecting instructors to perform these tasks, the persons best able to attain the desired goals should be chosen in preference to those who are most easily spared. The experiences of the workshop participants suggest that a teacher's own estimate of his knowledge of drugs often bears little semblance to how much he really knows.

Other findings derived from the workshops were that (a) attitudes toward various drug-related issues can be changed, (b) school staffs can be helped to feel more certain of their abilities and roles in a drug abuse program, and (c) school personnel can be trained to critically assess their school's state of involvement in drug abuse programs and may increase their school's participation in such programs.

It could easily be concluded from the findings that the selecting and training of teachers is of crucial importance. Crash training programs for teachers are no more effective than crash drug education programs.

COMPREHENSIVENESS

Slightly less than half of the programs reviewed were limited in scope to classes in school, with the addition of a drug resource person and library reference material. There appears to be unanimous agreement among drug education specialists that the one-shot "crash" program is ineffective. A number of community drug education centers have been established, but they are usually not directly coordinated with the programs in the schools. An approach that has been tried at a number of schools is the "youth to youth" approach, in which organized peer pressure is used to discourage drug abuse. This can be done on a formal basis in classes, using students to guide the discussion, or on an informal basis using the students' own free time. In some programs, peer pressure is also operationalized through a school site drug information center.

Regarding the comprehensiveness of a program, evidence suggests that a mixed package may be the most useful. The program can only be a part of a total community effort, since students are affected by their environment outside the school as well as in it. What is learned in the program must be reinforced outside the program or it may be rejected. Within the program, it would also seem advantageous to offer a variety of approaches, so that program planners can select the approach that best meets the needs of each of the different classes of students identified by Dr. Nowlis.

INVOLVEMENT

Since most programs incorporated drug education into the regular class schedules, the students normally participated about one hour per day. Whether students participated throughout the school year or for shorter periods of time could not be determined. Most programs appeared to be continuous throughout the school year, but only a portion of the student body participated at any one time. Rap houses, other centers where students could meet, and individual counseling sessions were also generally permanent. The participants in drug education workshops were usually those students who intended to act as leaders in the program.

When the goal of the program is to increase individual growth and development, it is very important that the planned duration be sufficiently long for close rapport to be established between the participants and leaders. Since the factors that influence students change from year to year, it is also important that the educational program not be limited to students in just one grade.

PERSUASIVE TECHNIQUES

A variety of persuasive techniques have been used in drug education programs. The most common include the presentation of pro and con arguments (e.g., debates or panel

discussions), the use of professional or experiential authority (e.g., doctor, pharmacologist, or ex-addict) and the presentation of information through organizing and elaborating concepts in a conceptual structure. Another basic technique is to personally involve the participant in the subject matter through student research projects, skits, role playing, or rap sessions. Other techniques that have been used are encounter methods or sensitivity training, and adding humor or entertainment to the drug abuse messages.

Effective communication in a drug education program requires that the communicator be aware of his own feelings and biases about drugs and the program, and that he not impose his feelings and biases on others. The presentation and discussion of issues should be clear and open. Drug abuse should not be used as a symbol of all societal ills and as a scapegoat for societal problems, since this will impede communication. High fear appeal should be used only with great caution, particularly since it may have an effect opposite to that desired. Caution is also necessary in debate situations, since one speaker may be unduly influential in gaining acceptance of his point of view because of his charismatic appeal, personality, or presentation ability. A period of discussion should be scheduled after a presentation, particularly when there is an audience with a variety of opinions, to clarify the material and to explain differences between the information presented and beliefs held by audience members.

A teacher can be in a very useful position to influence the attitudes of participants, their peers, and the community as a whole toward drug abuse. The teacher can set an example by encouraging others to remain rational about drugs and encouraging open discussions with participants. Equating unconventional appearance with drug use, and stereotyping drugs in their composition and effects, can have harmful effects. In some cases, it may cause some participants to use the same strategies in defending drug usage (5).

INSTRUCTIONAL METHODS

The most frequently used instructional methods were (a) lectures, (b) discussion, and (c) question-and-answer sessions. No programs surveyed consisted only of lectures, but some of the peer group approaches consisted almost entirely of discussion. In programs that included discussion, it was almost always the major component, comprising an average of 60% of the program. Lectures never were over 50% of the programs surveyed, taking up, on the average, less than 30% of the program time. Frequently, lectures were given exclusively by outside experts on drug abuse. Educational packages, and individual sessions or counseling were also used occasionally.

Most programs were a combination of educational techniques, particularly professional authority lectures combined with question-and-answer sessions and films. One out of every three programs included field trips to organizations dealing with drugs, student reports, combined student projects or role-playing. About half the programs included homework on drug abuse prevention, debates, or peer instruction.

A program using a combination of different instructional methods would appear to be particularly effective. While discussion is certainly important, using other speakers, sponsoring symposia, or utilizing an educational TV package can also contribute to the success of a program. Any program should be flexible, and should allow for the greatest percentage of participant input into the program.

The choice of educational techniques could be made by the participants themselves. Since there has been no systematic evaluation of the effectiveness of different approaches, there is no way of knowing with certainty which approach would be most effectual. The initiation of an educational activity by prospective participants may be more important in determining the effectiveness of the activity than the particular activity itself.

MEDIA

A variety of different media were used. Films were used in over half the programs; handouts, texts, and slides were used in about one-third. Students were frequently asked to make newspaper and magazine searches for relevant articles on drugs. Video tapes, audio-visual packages, and tape recordings were also used occasionally.

A big problem in selecting materials for class use is finding available materials that are honest and unbiased in their approach. Many drug education materials are available, but they must be carefully screened before use. Once materials are selected, they should not be repeated year after year to the same group in an on-going program.

Although there are excellent materials available for use in drug education programs, if they are not relevant to the group for which they were intended they may be virtually worthless. It may be advantageous to vary the types and formats of the material presented, to ensure that some part of the material will affect each of the participants.

EVALUATION

Evaluation techniques were very limited among those programs surveyed. The most common technique was to compare knowledge of drugs at the end of a program with knowledge at the beginning of the program. When this technique was used, knowledge of drugs was generally found to have increased. When attempts were made to evaluate programs by examining changes in attitudes toward drugs, relatively little attitude change was found to have occurred. In a study of California drug education programs, sponsored by the California State Legislature, tests were given in 11 school districts before and after programs were administered (7). There were some significant changes in both drug knowledge and attitudes, but there were no significant differences between the types of programs that produced these changes.

The fact that systematic evaluations of different programs over time have not been conducted provides little evidence on which to choose one program in preference to another. While many programs in existence appear to be well thought out, it cannot be demonstrated that their relative successes or failures have been due to the programs themselves rather than to external factors in the community or environment.

SUGGESTIONS FOR A MODEL PROGRAM

A model program can incorporate a variety of different approaches to drug abuse prevention education. With prevention as a goal, all drugs and their potential abuse might be considered within the framework of health education. While a specific target group may be selected for such a program, it might be desirable to direct part of the program to that group and part to the other groups with whom they interact.

Communication in smaller groups is generally more effective than in larger groups. In a specific environment, communication may also be more effective for certain individuals than for others. For some individuals, the school situation may be the most effective, others may respond in the environment of a purely voluntary center or rap house. The optimal strategy would appear to involve the individual as much as possible in those drug education programs most to his liking.

The consensus of the experts is that the target group should be involved as much as possible in planning, directing, and presenting the program. Others involved in the presentations should be completely honest and as open as possible.

It appears from the programs surveyed that there should be as much participant involvement as possible in the presentations, particularly in the form of discussion. When controversial material is presented, care should be taken to allow for some discussion of the various issues. Involvement in such a program should be long enough to allow for discussion of more than surface issues, and for some rapport to develop within the group.

Some of the same precautions must be taken when training the instructors and group leaders. The instructors selected should be sensitive to others and should be able to promote an atmosphere conducive to discussion and active exchange of ideas.

Finally, it is important that any one program be evaluated. There will probably be some informal feedback, but the use of pre- and post-tests on drug knowledge, drug attitudes, and intended future behavior regarding drugs would provide a better index of how well the material is being communicated.

Chapter 4

REVIEW OF THE PSYCHOLOGICAL LITERATURE

THEORY AND RESEARCH IN THE AREA OF ATTITUDE CHANGE

The concern with, and research regarding, attitude formation and attitude change has led to the development of a number of theories of attitude change (10, 11, 12, 13, 14, 15, 16, 17). As with all theories, each has its merits and its drawbacks. In addition, no single theory has attracted unanimous support; there is no single theory that is considered better or more adequate in all situations than the others, and thus no one theory that can be presented as best able to deal with changing attitudes toward drug abuse.

Therefore, a brief summary of a number of attitude change theories will be presented. Some of these theories may be so impractical for use in drug education that they may be rejected in favor of other more practical approaches. In the following review, these difficulties will be pointed out. The final test of the application of any of these theories will be their suitability for use in drug education, combined with their appeal to those who may choose to implement them. The purpose of this review is, therefore, to provide the information regarding the alternative approaches that are available, and allow the choice to be based upon the specific requirements of each situation.

CONSISTENCY THEORIES

A number of theories hold that attitude formation and attitude change occur as a response to cognitive, affective, or behavioral inconsistencies (10, 18, 19, 20, 21, 22, 23). Although each of the theories differs somewhat from the original theory of Heider (18, 19), they are all sufficiently similar to warrant a single discussion of the basic theoretical approach.

Consistency theories are based upon the various assumptions that an individual will strive to maintain consistency in his attitudes, between his beliefs and attitudes, between his attitudes and overt behaviors, and among different behaviors. Being aware of an attitudinal or behavioral inconsistency is assumed to be uncomfortable for the individual, and this discomfort is seen as sufficient to effect changes in attitudes, beliefs, or behavior.

A number of ways have been suggested for creating inconsistency within an individual who has a basic striving for consistency. One way may be through logical shortcomings; a second may arise through the simultaneous occupying of two conflicting social roles; and a third may arise by a change in the individual's environment that leaves him with a view of the world that no longer accords with reality. A person may also be pressured into behaving in ways that are contrary to his own attitudes. Lastly, an individual may be convinced to change his attitude on any one issue only to find that this new attitude is no longer in accord with the other attitudes he holds. When inconsistency arises, the individual may take steps to resolve this inconsistency and restore consistency among the elements in the relationships. He may bolster a particular

attitude, redefine an attitudinal object, or transcend the inconsistency by relating it to a larger concept that takes precedence over the existing inconsistency and, in a sense, justifies it. The critical point is that some effort will be made to resolve the inconsistency.

One difficulty with the consistency theories, however, is the inability to predict exactly which step or steps will be taken to restore consistency, since a number of alternatives are possible. In addition, consistency theories rest on the assumption of an underlying "rationality" in the individual—an assumption sometimes difficult to make. In empirical research on consistency theories, the alternatives available for resolving inconsistencies have usually been carefully restricted. In applied situations, however, this presents a sizable problem. Applications of consistency theories in areas such as drug abuse prevention involve the creation of inconsistency and the restoration of consistency through a limited number of alternatives. If the means of resolving inconsistency can be limited to changes in the individual's attitude and/or behavior regarding drugs, then the creation of inconsistency through information presentation, peer pressure, and so forth, would lead to the desired mode of resolving the inconsistency. The alternatives available to the individual for resolution of the inconsistency are not so easily controlled, however. In short, even if inconsistency can be created, there is no guarantee that the individual will react in a prescribed way.

The application of a consistency theory approach can only create inconsistency in a limited number of ways. Furthermore, the alternative actions that the person may take to the desired goals of the program must somehow be restricted. Examples of the means by which alternatives can be restricted include using credible, likeable sources of information that are not so easily discredited, presenting unbiased, accurate information, and relating the formation and drug attitudes to a number of other attitudes and behaviors. Ideally, the desired alternative for inconsistency resolution would be the most likely, attractive alternative that involved the least coercion and fit most comfortably into the person's total attitude-behavior framework—obviously a difficult if not impossible situation to create. In addition, the underlying assumption of "rationality" in the case of drug abuse attitudes and behaviors is very questionable.

FUNCTIONAL THEORIES

The functional approach (12, 13) to the study of attitudes and attitude change assumes that the maintenance of a particular attitude serves several functions or purposes. Knowledge of the function served by an attitude can help determine the most effective way to change the attitude. Some functions that an attitude can serve are instrumental or adjustive, ego-defensive, value-expressive, and knowledge.

The instrumental or adjustive function is based upon the assumption that people often strive to maximize rewards and minimize punishments in the environment. It is much like conformity in that attitudes may be held to enable the person to receive rewards such as praise, group membership, and acceptance. Thus, certain attitudes could be instrumental in the person's social relationships.

The ego-defensive function involves the "protection" of emotions and inner feelings by holding attitudes and views that do not threaten emotions and that protect the individual from the "harsh realities" of the external world.

The value-expressive function involves the person's desire to express the values, character, and personality that he feels represent his self-concept. In short, an attitude can function as an indication of the things a person wants to be or feels that he is in terms of his self-concept, identity, or individuality—they can serve as an attitudinal resume of his personal qualifications.

Finally, the knowledge function serves the individual's need to be correct and to experience validity and organization in the real world as well as in his own cognitive structure.

Ways have been suggested to change attitudes that serve these various functions. Attitude objects may be made less instrumental or adjustive by reducing or altering the need that is served by the attitude object. Attitudes or objects that are no longer instrumental may be replaced by new ones. In a drug problem, new and better means of serving this function might be suggested. For example, if a person's attitudes toward drugs serve an instrumental function by gaining him acceptance or praise in his peer group, the suggestion of a more effective way to gain this praise and acceptance might lead to a change in favor of some other attitudes.

Attitudes serving an ego-defensive function might be changed by providing insights into the personality functions served by those attitudes and allowing the person to better understand his defense mechanisms. This might then enable him to reject those attitudes that merely serve as defense mechanisms. Allowing an individual to express or ventilate his emotions, as in sensitivity or encounter group situations, may also bring about changes in attitudes serving an ego-defensive function, since the emotions being "protected" no longer would require these defense mechanisms.

In order to change attitudes of a value-expressive nature, the values themselves might be changed, making the related attitudes no longer applicable. On the other hand, those attitudes serving the value-expressive function might be attacked as not really being representative or expressive of the particular values. In other words, it might be possible to point out to the individual that his values are quite noble, but those attitudes that he uses to express or bolster the values may indeed be inappropriate or even contrary or contradictory to his real value structure. For example, if an individual values courage and feels that attitudes favoring the use of drugs express or represent courageous behavior, these attitudes might change if they were shown to represent weakness, escapism, or frailty. Alternative attitudes may then be pointed out as more expressive or representative of courage and strength.

Attitudes serving a knowledge function might best be altered by presenting more accurate information and views that do not support the existing attitudes. Since knowledge-function attitudes help the individual to understand the world, any situation or information that cannot be understood or explained with these attitudes would present a problem that might be solved only by a change in the attitudes. If a person favors drug abuse because he feels it provides insight and is harmless to the individual, facts showing that drugs are harmful and do not lead to great insights may force him to change his attitudes. The new facts must be accurate and verifiable, however, since any doubt or lack of credibility would only bolster the person's existing attitudes, which he may feel are more "factually" based. New attitudes based upon more accurate information and providing a more knowledgeable understanding of the real world should be offered as alternatives for the attitudes being changed.

The functional approach to attitudes has some degree of appeal in that the function descriptions seem to reflect much of what appears in our everyday encounters with attitudes and attitude structure. However, a major problem lies in the necessity of identifying the functions served by specific attitudes for each individual separately, if successful attempts at attitude change are to be made. A particular attitude or view may serve any of the functions and may serve different functions for different people. Therefore, discovering the functions served by the various attitudes for different people can become an insurmountable task. Also, as was mentioned earlier, knowledge of the function served is a prerequisite to attitude change attempts, since the approach is different for attitudes serving different functions. In situations where the function served by an attitude is known, the methods appropriate for changing these attitudes are fairly well defined.

SOCIAL JUDGMENT THEORY

The basic contention of social judgment theory (14, 24) is that principles of judgment and comparison are central to an understanding of attitude structure and change. In a sense, this theoretical approach considers attitude change to be a two-stage process. The individual first makes a judgment or comparison of his own attitude position relative to the attitude position being advocated in a persuasive communication. The second stage is the actual change, or lack of change, in the individual's attitude. The degree of attitude change depends upon the perceived or judged discrepancy between the person's own attitude and that advocated by the communication.

The essential characteristics of this approach are generalizations from psychophysics regarding the principles of judgment. The basic principles involved are as follows:

(1) When faced with a number of stimuli, people tend to order and arrange them on a psychological continuum whether standards of judgment are available or not.

(2) To the degree that explicit standards are not available, these judgments are less stable, particularly when the stimuli are not near the extremes of the continuum.

(3) Especially in the absence of explicit standards, these judgments are influenced by social as well as individual factors.

(4) The extremes of the continuum serve as powerful reference points (anchors) when the person has had little previous experience with the stimuli, when the range of stimuli is not known, or when no objective standards are available for making the judgments.

(5) Introducing an anchor at or near either end of the continuum in a previous series of stimuli produces *assimilation*. Introducing an anchor considerably beyond the previous range of stimuli produces *contrast*. (Assimilation occurs when the entire distribution of judgments is shifted *toward* the anchor. Contrast occurs when the distribution of judgments is shifted *away* from the anchor.)

(6) The individual's own attitude or view serves as a strong "anchor" for judging attitude statements or persuasive communications.

(7) When the individual has high involvement in the issue, his own stand serves as an even stronger anchor.

The social judgment theorists have extended the principles to the persuasive communication situation and distinguished three "regions" along an attitude dimension—the latitude of acceptance, the latitude of rejection, and the latitude of noncommitment that separates the previous two regions. The *latitude of acceptance* is defined by theorists as those attitudes or views that a person is willing to endorse as tolerable or acceptable. This "region" on the attitude continuum would include the person's own view and those "near" or similar to his view. The *latitude of rejection* is defined as those views or attitudes that a person judges intolerable or unacceptable. The *latitude of noncommitment* is a term applied to the remaining views or attitudes—those not classified as either acceptable *or* unacceptable. This area or region separates the latitude of acceptance area from the latitude of rejection area.

Four propositions have been formulated from these principles as they apply to attitude change:

(1) An individual's attitude will change when persuasive attempts fall within his latitude of acceptance.

(2) An individual's attitude will not change when persuasive attempts fall within his latitude of rejection.

(3) As the discrepancy between the position advocated and the individual's own view increases, there will be greater attitude change, providing the persuasive attempt does not fall within his latitude of rejection.
(4) When the persuasive attempt falls within the individual's latitude of rejection, increased discrepancy leads to decreased attitude change.

The propositions and principles from social judgment theory imply that the greatest effect of persuasive communication comes when a persuasive attempt falls within a person's latitude of noncommitment, but not too close to the latitude of rejection boundary.

The application of this approach in the area of drug education involves a prior knowledge of each individual's latitudes of acceptance, noncommitment, and rejection. Once these are known, persuasive attempts can be structured to produce maximum attitude change. As with the functional approach, however, this requirement to define each person's attitude structure prior to the persuasive attempts, then tailor the persuasive attempts accordingly, presents a difficult task.

This approach does, however, point out the importance of knowing something about the prospective targets of persuasive attempts before actually presenting the persuasive communications. It also points out the necessity of examining the attitude-change process as a two-stage process involving judgments by the individual prior to actual attitude change. In addition, this theoretical approach recognizes the possibility that a particular view or attitude might *never* be adopted by some individuals whose own attitude is so drastically different from that being advocated. The implication of this in terms of drug education is that an attitude totally opposed to drug usage in any way may never be adopted completely.

INFORMATION-PROCESSING APPROACH

McGuire (15, 25) has formulated an information-processing approach to communication and attitude change. According to his analysis, attitude change occurs to the extent that the individual goes through a series of six steps in response to communication. The first step in this six-step analysis involves the *presentation* of relevant information or persuasive communication. Secondly, during the presentation, the individual must give *attention* to the communication. Thirdly, there must be *comprehension* of the message. If the information presented is not understood or comprehended by the recipient, change cannot occur. The fourth step in the process is that of *yielding*. This step involves the actual change in attitude by the individual in response to the communication. Then there must be *retention* of this change in attitude over time if behavior is to be affected. Without this retention, the attitude change may be only momentary or temporary, with a return to the initial attitude shortly after the communication attempt. The final step in the process is the evidence of change in the person's *overt behavior*. This last step represents what is usually considered the goal of any attitude change program, namely a change in the person's behavior.

These six steps are considered essential in the overall attitude change process. If the individual does not complete the six steps, attitude change does not occur. Although this approach is an analytical system, rather than a theory, it can serve as an effective means of analyzing or structuring a communication-attitude change process or program. In addition, this approach stresses the importance of the factors preceding and following the actual attitude change or yielding phase of the process.

In any drug education program, the six-step analysis can be used as a "checklist" to evaluate the effectiveness of the program in dealing with each step in the process. If no apparent attitude change or yielding occurs in a program, some attention to the

presentation of information and the ability of the audience to comprehend the arguments or views presented is indicated. If, on the other hand, some temporary attitude change occurs, but no evidence of overt behavior change is noted, it may indicate that the view being advocated in the program is not being retained after the end of the program.

McGuire refers to his six-step analysis as an analysis of the dependent variables in the communication-attitude change process. He has likewise formulated an analysis of the independent variables in the process, namely, the components of a persuasive communication (15). McGuire recognizes five major components in communication: source, message, channel, receiver, and destination factors.

Source factors refer to characteristics of the communication source such as credibility, attractiveness, and power. Credibility refers to the expertise, competence, trustworthiness, or qualifications of the source. Attractiveness refers to the likableness, similarity, and familiarity of the source as perceived by the audience. Power is concerned with the control or concern of source over the audience's behavior in response to the communication. Police agencies, for example, might be perceived as having greater power as a source than would a civilian in matters such as drug abuse.

Message factors are concerned with the structure of the communication itself. Examples of message factors are the presence or absence of fear appeals, presenting the obvious conclusion of the message, presenting agreeable views first or last in the communication, and repetition of the message. A great deal of research has dealt with these message factors and is described elsewhere (15, 17, 24, 26).

Channel factors refer to the method or media used in presentation. A communication may be presented by way of some mass media or on a face-to-face personal basis, and may involve visual or auditory senses as well as touch, taste, or smell. The relative effectiveness of the various types of mass media is specifically a concern for channel factors in communication, and a large amount of information is available concerning audio-visual aids.

Receiver factors are those that deal with the target audience members themselves. These factors include the multitude of demographic variables (e.g., age, sex, race, socioeconomic group), as well as ability and personality variables, and the active or passive role played by the recipient in the communication process. The purpose of surveys and questionnaires dealing with drug use is, in part, to obtain information regarding these receiver factors.

Finally, destination factors deal with questions of the objectives of communications. For example, the objective of a communication program may be to bring about complete changes in behavior. On the other hand, the objective may only be to alter the immediate verbal attitudes of the individuals. In many instances, destination factors are overlooked since they frequently occur following the communication program. However, in many cases, they are dealt with implicitly throughout the communication process in the form of assumptions on the part of the communicator. Follow-up studies and attitude surveys of those receiving drug education information are directly concerned with these destination factors, since their purpose is to assess the effects of the communication on attitudes and behaviors.

McGuire has discussed the application of this analysis to drug education and has shown how the most effective means of communication concerning drugs might be determined (25). Using this analytical approach can point out many aspects of the communication-attitude change process that are critical, yet might be overlooked in formulating drug education programs.

HOVLAND'S REINFORCEMENT APPROACH

Carl Hovland and his colleagues began studying communication and persuasion in the early 1940s (17, 27). Since that time, they have studied communication-attitude change factors, such as source characteristics, fear appeals, structure of the communication, active participation, effects of group membership, characteristics of the audience, and personality as they affect persuasibility. Although Hovland uses a learning theory framework as a basis for this research, it has been more eclectic than oriented strictly to learning theory. The learning theory basis lies mainly in the assumption that an attitude or opinion will remain unchanged until new learning experiences occur to bring about changes in the attitude or opinion. In addition, it is assumed that general principles of learning concerned with attention and comprehension operate in the persuasive communication situation.

From this theoretical starting point, research efforts have been directed at the factors mentioned above. From this research, Hovland and his colleagues have developed numerous empirical relationshps that bear directly on the effects of communication and persuasion on attitude change.

Studies of the effects of source characteristics on communication and attitude change showed that high credibility sources produced more attitude change than low credibility sources. This difference became less noticeable after a longer period of time, however. In addition, it should be mentioned that *both* high and low credibility sources produced attitude change in the desired direction; the high credibility sources simply produced *more* attitude change than did low credibility sources. Hovland and his colleagues attributed the greater effectiveness of high credibility sources to their tendency to be perceived by subjects as more trustworthy and sincere, as having nobler intentions than low credibility sources.

The attitude of the audience toward the communicator exerts influence throughout the entire communication-attitude change process. A favorable attitude toward the source of information can alternate the effects of negative or unfavorable factors later in the process. For example, the audience may be less inclined to object to views that contradict their own attitudes if they like or value the source of the communication. In short, a credible and trustworthy speaker can enhance the effectiveness of the communication from beginning to end and thus is an extremely critical ingredient in any communication situation.

Hovland and his colleagues also studied the effects of threatening or "fear appeal" communications. The results of these studies are mixed and do not lend themselves to a single generalized conclusion. In some instances, fear appeals brought about more attitude change than non-threatening messages. However, it was also found that later communications advocating the opposite view were rejected *less* by those who initially received the fear appeal communication. In other words, in some instances the fear appeal may be more effective, but it makes the person more susceptible to subsequent counter arguments. As noted earlier in this report, however, fear appeals have been found to be ineffective and undesirable in the drug education field.

SUMMARY

This brief review of theoretical approaches to attitude change, although not exhaustive, is intended to provide a basic understanding of the way in which theoreticians approach the attitude change process. It is evident that no single approach pervades the theoretical literature, although some basic similarities exist. For example, the theoretical approaches emphasize the importance of considering attitude change as a complex process

involving a collection of interrelated attitudes and beliefs rather than single isolated attitudes. A particular attitude does not exist independent of other aspects of the individual's attitude framework. This fact alone makes attitude change a complicated and frequently unpredictable process. However, with an understanding of the complexity of an individual's attitude structure and a concern for the relationships among attitudes, a more comprehensive and effective effort at attitude change is made possible.

It is not intended that an education program first select a particular theoretical approach and then strictly adhere to that approach throughout. Instead, various aspects of different theoretical approaches should be tried and, if successful, continued or, if unsuccessful, discontinued or modified. There are a number of opportunities for innovative use of these theoretical approaches, and this fact leaves wide open the possibilities for drug program design and content. Such theoretical models as McGuire's (15, 25), mentioned earlier, should serve as convenient tools for the conceptualization of communication and attitude change in drug education programs.

Chapter 5

DRUG EDUCATION PROGRAM GUIDELINES

GUIDELINE SOURCES

Suggestions or guidelines for conducting drug education programs can legitimately come from a variety of sources. Information from surveys may provide many constructive suggestions for future drug education efforts. This sort of information frequently deals with characteristics of the population surveyed, attitudes of respondents toward drug use and drug education, points of strength or weakness in existing efforts at drug use prevention, and descriptions of the level of usage and types of drugs used by various subgroups of the population. This sort of information was obtained in the alcohol and drug survey described in this report.

What others have been doing in the area of drug education is a valuable source of suggestions as to what Army drug education programs might do. In a way, it may be assumed that only those methods which are found more effective in drug education will endure, while less effective methods are abandoned. The review of existing civilian drug education programs was performed in order to describe methods that have "survived" the test of time in drug education. In short, the methods that are currently most popular in these programs may serve as suggestions for persons who must develop educational approaches to drug use prevention and education.

Finally, there are suggestions that may stem entirely, or in part, from theoretical formulations of the attitude change process. Frequently these principles derived from research have already been incorporated into existing programs of drug education. One example of such a principle is that of source credibility. Past research has shown that credible sources of information and opinion are more effective in changing attitudes than are sources with low credibility. This principle has since been incorporated into a variety of attitude change programs, ranging from advertisements to political campaigns and topics as diverse as dental hygiene and drug abuse. However, other research findings and theoretical principles of attitude change have not found their way into applied programs of communication and attitude change.

In suggesting guidelines for use in implementing drug education programs, a mixture of information from these three sources was used. In some instances the guidelines represent only methods that are currently "popular" in drug education, while in other instances they are more direct translations from psychological theory and research. Their use, however, is up to the needs of each particular situation and should be flexible in responding to changes that occur in the program and its objectives.

GUIDELINES FOR IMPLEMENTING PROGRAMS

(1) Define the objectives and goals of the program. The first step in any drug education program should be to establish objectives and goals. Once this is done, the development of the program can be directed at satisfying these objectives. The objectives and goals should serve both as guides to the structure and content of the program, and as criteria for evaluating its effectiveness. Objectives should be as specific and realistic as

possible. Without such objectives, a program's effectiveness may be diluted by the inclusion of irrelevant and unrelated material. A discussion of defining objectives for drug education is included in a report by the Ford Foundation on drug abuse (28).

(2) Compile a comprehensive library of drug facts, research findings, issues, and opinions of authorities in the drug field, and a bibliography of literature on drugs. Effective communication involves an image of credibility and trustworthiness for the *source* of the communication. The availability of accurate information and authoritative opinion can help in the development of such an image for the program. Through the compilation and maintenance of a comprehensive literature of drug-related information, the audience can be given accurate and honest information and their questions can often be answered by referring to this material. One major complaint about many drug education programs today is that they present biased and inaccurate information and, as a result, are less effective. To avoid this problem, information that can provide material for the program and background preparation for those administering it should be assembled.

An extensive but not exhaustive bibliography of drug literature is provided as Appendix B in this report. A major source of information and materials, as well as suggestions and authoritative opinion concerning drugs, is the National Clearinghouse for Drug Abuse Information. Any program dealing with drugs should make use of the services offered by this organization.

(3) Make a preliminary assessment of the knowledges, attitudes, and behaviors of the potential audience. For communication to be effective, the attitudes and behaviors of the audience need to be known. This preliminary assessment should provide information regarding the types of drugs being used, the frequency of usage, the types of pro- or anti-drug attitudes prevalent among the group, and the feelings of the group toward drug education. On the basis of this information, relevant speakers and information can be obtained. In addition, this assessment will serve as an effective "pre-test" of the target group. The program's effectiveness can then be assessed by comparing these "pre-test" results with those of a "post-test" administered following the program.

(4) Establish relationships with other programs, treatment facilities, and activities that are part of the audiences' environment. In order to integrate the drug education program with other drug-related programs at the local level, contacts should be made with personnel in drug treatment and rehabilitation programs and outreach programs, such as hot-lines and rap houses, and with unit drug specialists. Drug prevention education is highly related to treatment programs, as well as less formal programs such as rap houses and crisis centers. The education process should include information about other drug agencies that may be used. For these reasons, good rapport should be developed between the education program and other drug facilities. Nonmilitary facilities, where they exist, should be a part of the total relationship. The availability of the drug education program should be made known to other drug-related agencies.

(5) Make provisions for discussion, role-playing, and active participation rather than relying entirely on lectures and films. Active participation has been shown to enhance the effectiveness of persuasive communications (17). In addition, some theoretical approaches to attitude change emphasize the importance of involvement and commitment. This, in conjunction with the popularity and apparent success of role-playing, group discussion, and active participation in current drug education approaches, seems sufficient reason to incorporate such activities in other drug education programs.

Although the availability of a variety of films and a wealth of factual information makes a lecture-film program a tempting alternative, this approach *alone* should not comprise the entire program. Where lectures and films are used, ample time for discussion should be provided afterward. Where sufficient time and personnel are available, other discussion groups and role-playing situations should be used.

Role-playing is simply having someone "play" the part of another person in discussion or in responding to a typical situation concerning some issue—in this instance, drugs. By playing the role of another person in some drug crisis or decision situation, an individual can better appreciate the problem and feelings that people in such situations normally experience. In addition, the individual's own biases and viewpoints are made more visible to himself and to others. Typical roles that are played are those of drug user, teacher, superior, concerned adult, youth, friend, or peer. A role-playing simulation game, *The Social Seminar*, is available from the National Clearinghouse for Drug Abuse Information. Although primarily intended for teachers, educators, and students, it has also been recommended for use in drug education programs generally.

(6) Use speakers and instructional personnel who are liked, trusted, informed, concerned, and similar to the potential audience (peers). The importance of social and attitudinal similarity to persuasiveness and attraction has been found in a variety of research studies. People who are similar are usually liked and respected more than people who are dissimilar (29, 30). In selecting speakers or administrators for a drug education program, care should be taken to choose, if possible, persons who are like the potential audience—in rank, age, ethnic origin, and so forth. Expertise should not be sacrificed but, among "experts," those who are more similar in attitude and background should be chosen. The use of peers has been strongly advocated because of their persuasiveness with audiences such as those encountered in drug education.

In addition, the personnel chosen should be informed and concerned about the drug problem, so that their credibility and concern will enhance their effectiveness and make them more acceptable to the audience. A word of caution is appropriate: It should be remembered that credibility, trustworthiness, and similarity are based upon the *audience's* perception of these factors and not upon the perceptions of the program director or the unit commander. A career NCO may be seen as credible, trustworthy, and concerned by his commanding officer. This does *not* mean, however, that the enlisted men will see him the same way. When judging a person's qualifications as a speaker, instructor, or discussion leader, consideration must be given to the way in which the audience will perceive him.

(7) Wherever possible, provide for training those who conduct the program and interact with the audience. To contribute to the overall credibility, honesty, and sincerity of a drug education program, the people in charge of administering the program should have the proper training and information. A variety of methods and facilities are available within the military to provide adequate training for drug education personnel. One such method for informing and preparing personnel is *The Social Seminar* mentioned earlier in this chapter; as a preparatory exercise for program personnel, this role-playing game can provide some valuable educational experiences and serve as a "workshop" exercise prior to conducting the program. In addition, the Army has offered training opportunities through Yale University; personnel who have received this training can offer valuable assistance in constructing and implementing drug education programs. Also there are provisions for training drug education specialists through local mental health and drug education facilities. As a minimum, concerned personnel with relevant previous experience should be used where available, and a variety of literature on drugs and drug education should be provided.

(8) Provide related programs and services to those associated with the target audience such as commanders, law officers, related community activities, and dependents. In order to implement a truly integrated program, an educational service should be provided not only to the immediate target audience but also to people related to the target audience, such as senior NCOs, commanding officers, law enforcement officials, and personnel in related community activities. Such personnel should at least be given some initial orientation to the program. In addition, it would be very beneficial to

provide them with such educational experiences as *The Social Seminar* mentioned earlier, and to enlist their assistance and cooperation in getting the program to as many people as possible. Again, the purpose of such efforts is to ensure that others are aware of the program and are informed of its objectives, so that they may provide support in making the program effective and well integrated. They may also provide valuable insights and suggestions, since they may see the overall drug problem from a different perspective and since they interact with the target audience in a different capacity.

(9) Keep a constant finger on the "pulse" of the program and audience, so that changes can be made where necessary and audience needs can be met. A drug education program should be responsive to audience needs and changing attitudes. To fulfill this requirement, the program should be flexible in content and day-to-day discussion topics, so that topics and issues that are of immediate importance to members of the audience can be incorporated into the program. If the audience begins to show signs of disinterest, the topic should be changed. When the audience feels that the program is relevant, the topics are interesting, and their needs are being met, the program's effectiveness can only be enhanced. Since these interests may vary on almost a day-to-day basis, constant attention must be given to audience reactions so that appropriate changes in the format or content of the program can be made.

(10) Provide for periodic evaluation of the effectiveness of the program in meeting the objectives and goals prescribed. In addition to keeping a constant watch over day-to-day changes in audience needs and reactions to the program, a more formal evaluation should periodically be made on the program's effectiveness. The focus of such an evaluation should be upon the objectives and goals of the program and the audience acceptance and response. The evaluation should serve both as a "post-test" for comparison with the "pre-test" and as an assessment of general audience acceptance and feelings that will serve as a guide for possible areas of improvement in the program. Aspects to be covered include attitudes toward drug use, knowledge of drug information, planned future behaviors, feelings about the adequacy of the program, and suggestions for changes in the program.

(11) Don't be discouraged if changes do not occur immediately. The attitudes and behaviors that contribute to today's drug problem did not develop overnight. They have been evolving for many years, and they obviously are not going to change overnight in response to a single drug education program. The most realistic expectation of the program's influence should be one of a developing awareness of the drug problem and understanding of the psychological and social factors contributing to drug abuse.

If a drug education program can bring about *less favorable* attitudes toward drug usage and a willingness to look at the problem more realistically, the program can be considered moderately successful. On the other hand, research in the attitude change area has shown that attitude change sometimes occurs *immediately* following a persuasive communication, only to disappear later. Other studies indicate that attitude change sometimes does not occur until some time has elapsed—the so-called "sleeper effect."

These points, taken together, imply that some assessment of attitudes should be made immediately following a program, and again after some time period has elapsed. Expectations concerning when and how much attitude change should occur as a result of a drug education program should be tempered with some degree of patience.

(12) Don't be judgmental of the audience—allow them to make their own decision based upon accurate, honest, up-to-date information from the program. In Brehm's theory of attitude change (31), a major aspect of successful change is the freedom that an individual has to make the decision. According to this theory, an individual who feels pressured or coerced or who feels a lack of freedom regarding his attitudinal response to a communication will not only fail to accept the advocated view, but may react by becoming even more opposed to it. For this reason, it is important that audience

members do *not* feel pressured or coerced to accept the view advocated in a drug program. Instead they should be given the opportunity to decide for themselves on the basis of the information available. In addition, they should not be "judged" by those administering the program, since this may cause them to react by derogating the source, program, and views advocated, as a response to being harshly or "unfairly" judged. The freedom to interact and to decide for themselves is very important to members of the audience. They should be made to feel that they are not being forced and that the program personnel are understanding and nonjudgmental.

(13) Allow the audience to question and challenge your information and opinion, and admit your faults where they exist. The importance of credibility, trust, understanding, and freedom to communicate and make decisions has already been noted. As a further step toward developing this atmosphere in a drug education program, the audience should be allowed to question and challenge the information and views presented. In addition, those administering the program should admit their faults where they exist. This sort of two-way dialogue and understanding between the audience and the program will promote the trust and respect of the audience—two factors of obvious importance in effective communication. This atmosphere will also be conducive to more candid and honest reaction and response by the audience to the program and to evaluation measures.

(14) Don't make the program a "one-shot" crisis program but instead make it a continuous program, integrated with other programs and agencies locally. The importance of a continuous drug program, integrated with other drug programs and activities cannot be overemphasized. The experience of other drug programs and authorities in the drug field is that crisis or "one-shot" programs have *negative* effects. Not only does the target audience fail to identify or become involved with crisis programs, they also recognize the lack of understanding that such programs reflect. A drug program should therefore be a continuous and integrated effort which reflects the concern and understanding of the persons operating the program.

(15) Utilize knowledgeable people in other fields, such as doctors, lawyers, law enforcement officials, counselors, and ex-addicts where warranted. A complete and effective program should provide a variety of information and discussion by presenting knowledgeable people from various disciplines and roles. To provide medical, legal, and psychological-social opinion and discussion in the program, persons qualified to speak in these areas should be used. In addition to providing credible and trustworthy information in these areas, use of outside discussants also supplies sufficient variety in the program content to meet the varied needs and interests of the audience. Although the use of ex-addicts has in some instances been discouraged, since the audience may identify favorably with them because of their apparent "success" in being included as speakers or discussants, the use of ex-addicts may be warranted in some instances. When audience members have a great need to find out "what it's like" on drugs, an ex-addict may be able to satisfy that need by participating in the program. Careful selection must be made, however, to ensure that the person chosen does not undermine the effectiveness of the program.

(16) Provide for as much peer interaction and input as possible and allow audience members to interact with each other. A number of surveys of drug usage and attitudes, including the survey made during this study, indicate the importance of peers and friends in formulating one's attitudes and behaviors regarding drugs. Peers are influential not only in a person's choice to use drugs, but also in the decision to stop using or not use drugs. For this reason, peer interaction and input in a drug program can make the program much more effective, enhancing the credibility and trustworthiness of the program as perceived by the audience. Group discussions, question and answer sessions, role-playing, and audience suggestions of program content or direction can all contribute.

(17) Let the participants or audience guide and structure the program as much as possible. Several of the programs reviewed earlier in this report used students or members of the target population as program personnel, allowing them freedom to structure content, present aspects of the program, and participate in the decision-making process concerning program development and implementation. From the standpoint of peer influence, meeting audience needs, providing audience input and interaction in the program, and general program relevance and credibility, this approach is very appealing. In developing and implementing military drug education programs, following this example wherever possible seems warranted. In structuring the program, selecting content, presenting the program, and developing audience interaction, members of the potential audience (peers) should be given as much input and responsibility as possible.

(18) Convince the audience that there are other agencies where they can turn for help and that there is nothing wrong with going to these agencies. In the survey results, a number of individuals indicated that they would *not* use drug agencies such as education centers, rap houses, and counseling centers if they had a drug or alcohol problem. One obvious recommendation from these results is that in future drug programs a great effort should be made to inform the audience of these agencies and fully explain the confidentiality that they guarantee. In addition, there should be discussion of the variety of underlying psychological factors related to drug use and the availability of help in solving these problems. In short, audience members may very well need reassurance that their needs and problems are understood and that these various agencies are in existence to offer help in resolving these problems. Audience members should be assured the full cooperation of the drug education program in obtaining these services where they are needed. To do this, the program personnel must be informed about the existence and availability of all such agencies.

A list of agencies dealing with the problems of drugs is presented in Appendix C of this report. These agencies offer a variety of information and services. In establishing a drug program, this information and service should be sought.

SUMMARY

The preceding guidelines represent a combination of theory, practice, and opinion. They are applicable to education programs in a variety of topic areas other than drug abuse, such as racial relations, leadership, community relations, youth programs, and many other social issues. Their continued use should be a function of the effectiveness of programs that follow these guidelines. Where other innovative approaches are suggested, they should be tried.

In an area such as drug abuse where so much is being tried for the first time and where so little evaluation is present to dictate which approaches are best, there are no firm guidelines that should be followed blindly. Instead, there are only opportunities to try many things, in the hope that some will prove effective and will direct future efforts. In order to know when these approaches are sound, the effectiveness of drug programs must be constantly evaluated. It is important to "measure," in a variety of ways, the success of efforts in meeting the objectives of a program. Where these efforts fail, others should be made.

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Appendix A

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Appendix C

DRUG INFORMATION AGENCIES

1. Alcoholics Anonymous General Service Headquarters
   305 East 45th Street
   New York, New York 10017

2. American Medical Association
   Council on Mental Health (and/or Dept. of Health Education)
   535 North Dearborn Street
   Chicago, Illinois 60610

3. Bureau of Narcotics and Dangerous Drugs
   U.S. Department of Justice
   1405 "I" Street, N.W.
   Washington, D.C. 20537

4. Command Information Division
   Office of Chief of Information
   Department of the Army
   Washington, D.C. 20310

5. Food and Drug Administration
   Consumer Education
   U.S. Department of Health, Education and Welfare
   Washington, D.C. 20204

6. The National Clearinghouse for Drug Abuse Information
   National Institute of Mental Health
   Parklawn Building
   5600 Fishers Lane
   Rockville, Maryland 20852

7. National Coordinating Council on Drug Abuse Education and Information, Inc.
   Suite 212, 1211 Connecticut Avenue, N.W.
   Washington, D.C. 20036

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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

A set of guidelines for use in drug education programs was developed in a four-phase study of various aspects of drug usage and drug education. In Phase I of the study, a questionnaire on drug usage and related attitudes was developed and administered to 2,149 military personnel at Fort Knox, Kentucky. Phase II involved a review of 15 civilian drug education programs, their characteristics, and the suggestion of a model drug education

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program approach. Phase III was a brief review of psychological theory and research regarding attitude change. Based upon data and information obtained from the first three phases, 18 guidelines that can be useful in the conduct of a drug education program were formulated during Phase IV.

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1 USA FINANCE SCH FT BENJ HARRISON ATTN EDUC ADV
1 COMDT STU GEN SCH FT BENJ HARRISON ATTN EDUC ADV
1 COMDT USAIS ATTN EDUC ADV FT BENNING
1 COMDT USAIS ATTN AJEIS-D-EPRD FT BENNING
1 HQ US ARMY SOU GEN SCH FT BENJ HARRISON ATT COMDT
2 LIB ARMY QM SCH FT LEE
1 COMDT USA QM SCH FT LEE ATTN EDUC ADV
1 COMDT ARMY TRANS SCH FT EUSTIS ATTN EDUC ADV
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1 CO USA ORD CTR & SCH DEC OF JOS ATTN AMXMS-D APG MD
1 CG USA FLD ARTY CTR & FT SILL ATTN AVN OFCR
1 COMDT ARMED FORCES STAFF COLL NORFOLK
1 COMDT USA SIG CTR & SCH ATTN DOE FT MONMOUTH
1 EDUC CONSLT ARMY MILIT POLICE SCH FT GORDON
1 COMDT USA ENGR SCH ATTN EDUC ADV AMXMS-EA FT BELVOIR
1 COMDT ARMY AVN SCH FT RUCKER ATTN EDUC ADV
1 DIR OF INSTR US MIL ACAD WEST POINT NY
1 DIR OF MILIT INSTR US MILIT ACAD WEST POINT
2 COMDT US WAC SCH US WAC CTR ATTN ASNCE FT MCCLELLAN
1 CO USA INTELL CTR & SCH ATTN DIR OF ACADEMIC OPS FT HUACHUCA
1 COMDT USA CGSC DEC OF CHF OF RESIDENT INSTR FT LEAVENWORTH
1 COMDT USA SCH & ENG CTR ATTN ACOES GA ENG DIV FT MCCLELLAN
1 COMDT USA ARTY SCH ATTN EDUC ADV FT SILL
1 COMDT USA TRANS SCH ATTN DIR OF DOC & LIT FT EUSTIS
1 COMDT ARMY QM SCH DEC DIR OF NONRESID ACTVY ATTN ENG MEDIA DIV VA
1 COMDT USA ARTY SCH ATTN LIB FT SILL
1 CG USA SCH & ENG CTR ATTN ACOES GS FT GORDON
1 COMDT USA AD SCH ATTN AKAAS-DL-EA FT BLISS
1 SECY OF ARMY, PENTAGON
1 DCS-PERS DA ATTN CHF CAS DIV
1 DIR OF PERS STUDIES & RSCH DCSPER DA WASH DC
1 CHF OF PERS OPNS PERS OPCTR DA ATTN OPSC
2 EG ARMY MED RES COMD ATTN REHAV SCI RES RR

1 PROVOST MARSHAL GEN DA
1 DEC RESERVE COMPON DA
12 ADMIN SOC ATTN: FCA CHEALEY CAMERON STA. ALEX., VA. 22314
1 CHF OF R&D DA ATTN CHF TECH + ENDSEM LIAISON OFC

1 COMDT USA CMT SURVEIL SCH & ENG CTR ATT ED ADV FT HUACHUCA
1 USA LIB DEV-TAGO ATTN ASDIRS
15 CG CONARC ATTN ATIT-STM FT MONROE
2 CG CONARC ATTN LIB FT MONROE
1 CHF USA AD HRU FT BLISS
1 CHF USA ARMOR HRU FT KNOX
1 CHF USA AVN HRU FT RUCKER
1 CHF USA INF HRU FT BENNING
1 CHF USA TNG CTR HRU PRES OF MONTEREY
1 CO 2D ARMORED CAV REGT APO 09693 NY
1 CO 3D ARMORED CAV REGT FT LEWIS
1 CG ARMY ARMOR CTR FT KNOX ATTN GS AFRGT
1 CG 3RD INF DIV ATTN ACOES GS APO NY 09035
1 CG 8TH INF DIV ATTN ACOES GP APO NY 09112
1 CG 82ND ABN INF DIV ATTN ACOES GS FT BRAGG
1 CG XVIII ABN CORPS ATTN ACOES GS FT BRAGG
1 CO USA PARTIC GP USA TNG DEVICE CTR FLA
1 CG MILIT DIST OF WASHINGTON
1 DA USA ADV GP (ARNGUS) RALEIGH NC
1 DIR ARMY LIB PENTAGON
1 CHF OF MILIT HIST DA ATTN GEN REF DR

1 CG 101ST ABN DIV (AIRMOBILE) ATTN ACOES GY APO SAN FRAN 96347
1 CG 1ST CAV (AIRMOBILE) ATTN ACOES GS APO SAN FRAN 96441
1 CG III CORPS & FT HOOD ATTN GS SEC FT 76530
1 CO 1ST ARMORED DIV ATTN GS SEC FT 79503
2 CG 2D ARMORED DIV ATTN GS SEC FT 79503
1 RSCH CONTRACTS & GRANTS DR ARO
1 CINC US ATLANTIC FLT CODE 3122 USN BASE NORFOLK
1 DIR PERS RES DIV BUR OF NAV PERS
1 TECH LIB BUR OF SHIPS CODE 312L NAVY DEPT
1 KNOW PSYCHOL DR ONR CODE 455 ATTN ASST HEAD WASH DC
1 CO + DIR NAV TNG DEVICE CTR ORLANDO ATTN TECH LIB
1 CHF OF NAVAL RSCH PERS & TNG RS CODE 458 ARL VA
1 DIR US NAV RES LAB ATTN CODE 5123
1 DIR NAVAL RSCH LAB ATTN LIB CODE 2029 WASH DC
1 DIR PERS RES LAB NAV PERS PROGRAM SUPPORT ACTIVITY WASH NAV YD
1 COMDT MARINE CORPS HQ MARINE CORPS ATTN CODE AO-1A
1 HQ MARINE CORPS ATTN AX
1 DIR MARINE CORPS EDUC CTR MARINE CORPS SCH QUANTICO
1 DEP MARINE CORPS INST ATTN EVAL UNIT
1 US MARINE CORPS HQS MEDF REF LIB ATTN MRS JAMOT
1 CO US COAST GUARD RES TNG CTR YORKTOWN VA
1 TECH DIR TECH TNG DIV(HOSE ARMEL LOWRY AFB COLO
1 CO HUMAN RESOURCES LAB BROOKS AFB
1 EDUC MEDIA SP OF HEW ATTN F D CLEMONS
2 FREE DF WASH DC
2 LIB TH CONGRESS CHF DF EXCH + DEPT DEV
1 CG 7TH US ARMY ATTN SGS NY
1 CG I CORPS ATTN SGS
1 CG V CORPS ATTN SGS
1 CG VII CORPS ATTN SGS
1 CG IX CORPS ATTN SGS
1 CG 2ND INF DIV ATTN C OF S
1 3D ARMORED DIV ATTN C OF S
1 CG 4TH INF DIV ATTN C OF S
1 CG 1ST INF DIV ATTN C OF S
1 CO 1ST BDE 1ST ARMORED DIV ATTN EO
1 CO 2D BDE 1ST ARMORED DIV ATTN EO
1 CO 3D BDE 1ST ARMORED DIV ATTN EO
1 CO 1ST BDE 2D ARMORED DIV ATTN EO
1 CO 2D BDE 2D ARMORED DIV ATTN EO
1 CO 3D BDE 2D ARMORED DIV ATTN EO
1 CO 1ST BDE 2D INF DIV ATTN EO
1 CO 2D BDE 2D INF DIV ATTN EO
1 CO 3D BDE 2D INF DIV ATTN EO
1 CO 1ST BDE 3D ARMORED DIV ATTN EO
1 CO 2D BDE 3D ARMORED DIV ATTN EO
1 CO 3D BDE 3D ARMORED DIV ATTN EO
1 CO 1ST BDE 3D INF DIV ATTN EO
1 CO 2ND BDE 3D INF DIV ATTN EO
1 CO 3D BDE 3D INF DIV ATTN EO
1 CO 1ST BDE 1ST CAV DIV ATTN EO
1 CO 2D BDE 1ST CAV DIV ATTN EO
1 CO 3D BDE 1ST CAV DIV ATTN EO
1 CO 1ST BDE 4TH INF DIV ATTN EO
1 CO 2D BDE 4TH INF DIV ATTN EO
1 CO 1ST BDE 5TH INF DIV ATTN EO
1 CO 2D BDE 5TH INF DIV ATTN EO
1 CO 3D BDE 5TH INF DIV ATTN EO
1 CO 1ST BDE 9TH INF DIV ATTN EO
1 CO 1ST BDE 25TH INF DIV ATTN EO
1 CO 2D BDE 25TH INF DIV ATTN EO
1 CO 3D BDE 25TH INF DIV ATTN EO
1 CO 1ST BDE 82D ABN DIV ATTN EO
1 CO 2D BDE 82D ABN DIV ATTN EO
1 CO 3D BDE 82D ABN DIV ATTN EO
1 CO 1ST BDE 101ST AMBL DIV ATTN EO
1 CO 2D BDE 101ST AMBL DIV ATTN EO
1 CO 3D BDE 101ST AMBL DIV ATTN EO
1 CO 1ST BDE 1ST INF DIV
1 CO 2D BDE 1ST INF DIV
1 CO 3D BDE 1ST DIV
1 CO 194TH ARMORED BDE ATTN EO
1 CO 6TH ARMORED CAV REGT ATTN EO
1 CO 11TH ARMORED CAV REGT ATTN EO
1 COMDT USA ENGNR SCH FT BELVOIR
1 COMDT USA WAR COLL PA
1 COMDT WEST POINT MIL ACAD NY
1 LIB USA AG SCH FT HARRISON
1 LIB USAAD SCH FT BLISS
1 LIB USA ARMOR SCH FT KNOX
1 LIB USA AVN SCH FT RUCKER
1 LIB USA CHAPLAIN SCH FT HAMILTON
1 LIB USA CHEM SCH FT MCCLELLAN
1 LIB USA CBT SURVEIL & EW SCH ARIZ
1 LIB USA ENGNR SCH FT BELVOIR
1 LIB USA FIN SCH FT HARRISON
1 LIB USA INF SCH FT BENNING
1 LIB USA MIL POL SCH FT GORDON
1 LIB USA ORD SCH APG MD
1 LIB USA SIG SCH FT MONMOUTH
1 LIB USA SES SCH FT GORDON
1 LIB US WAC SCH FT MCCLELLAN
1 LIB USA MED FLD SERV SCH FT HOUSTON

1 CG US WAC CTR ATTN DPT FT MCCLELLAN
1 CO USA ADV GP (ARNGUS) FT MEADE MD
1 CO USA ADV GP (ARNGUS) CONN
1 CO USA ADV GP (ARNGUS) KY
1 CO USA ADV GP (ARNGUS) MD
1 CO USA ADV GP (ARNGUS) OHIO
1 CO USA ADV GP (ARNGUS) PA
1 CO USA ADV GP (ARNGUS) VA
1 CO USA ADV GP (ARNGUS MAINE
1 CO USA ADV GP (ARNGUS) MASS
1 CO USA ADV GP (ARNGUS) N H
1 CO USA ADV GP (ARNGUS) N J
1 CO USA ADV GP (ARNGUS) N Y
1 CO USA ADV GP (ARNGUS) R I
1 CO USA ADV GP (ARNGUS) VT
1 CO USA ADV GP (ARNGUS) DEL
1 CO USA ADV GP (ARNGUS) DC
1 CO USA ADV GP (ARNGUS) GA
1 CO USA ADV GP (ARNGUS) FLA
1 CO USA ADV CP (ARNGUS) ALA
1 CO USA ADV GP (ARNGUS) MISS
1 CO USA ADV GP (ARNGUS) S C
1 CO USA ADV GP (ARNGUS) TENN
1 CO USA ADV GP (ARNGUS) ARK
1 CO 5TH USA ADV GP (ARNGUS) IND
1 CO 5TH USA ADV GP (ARNGUS) IOWA
1 CO 5TH USA ADV GP (ARNGUS) KAN
1 CO USA ADV GP (ARNGUS) LA
1 CO 5TH USA ADV GP (ARNGUS) MICH
1 CO 5TH USA ADV GP (ARNGUS) MINN
1 CO 5TH USA ADV GP (ARNGUS) MO
1 CO 5TH USA ADV GP (ARNGUS)NEB
1 CO USA ADV GP (ARNGUS) N M
1 CO USA ADV GP (ARNGUS) OKLA
1 CO USA ADV GP (ARNGUS) TEXAS
1 CO 5TH USA ADV GP (ARNGUS) WISC
1 CO USA ADV GP (ARNGUS) ARIZ
1 CO USA ADV GP (ARNGUS) CALIF
1 CO 6TH USA ADV GP (ARNGUS) COLO
1 CO USA ADV GP (ARNGUS) IDAHO
1 CO USA ADV GP (ARNGUS) MONT
1 CO USA ADV GP (ARNGUS) NEV
1 CO 6TH USA ADV GP (ARNGUS) N D
1 CO USA ADV GP (ARNGUS) ORE
1 CO USA ADV GP (ARNGUS) S D
1 CO USA ADV GP (ARNGUS) UTAH
1 CO USA ADV GP (ARNGUS) WASH
1 CO USA ADV GP (ARNGUS) WYO

1 CO USA ADV GP (ARNGUS) ALASKA
1 CO USA ADV GP (ARNGUS) PUERTO RICO
1 CO USA ADV GP (ARNGUS) HAWAII
1 CO USAR ADV GP PA
1 CO CO USAR ADV GP MASS
1 CO USAR ADV GP FT. WADSWORTH
1 CO USAR ADV GP COLUMBUS SPT FACILITY
1 CO USAR ADV GP INDIANTOWN GAP MIL RES
1 CO USAR ADV GP FT. MEADE MD
1 CO USAR ADV GP ALA
1 CO USAR ADV GP ATLANTA GA
1 CO USAR ADV GP SC
1 CO USA ADV GP (USAR)PUERTO RICO
1 CO USA ADV GP (USAR) HAWAII
1 CO USA ADV GP (USAR) TEXAS
1 CO USA ADV GP ARK
1 CO USA ADV GP TEXAS
1 CO USA ADV GP N M
1 CO USA ADV GP LA
1 CO USA ADV GP OKLA
1 CO USA ADV GP TEXAS
1 CO USA ADV GP (USAR) IND
1 CO USA ADV GP (USAR) ILL
1 CO USA ADV GP (USAR) MINN
1 CO USA ADV GP (USAR) MO
1 CO USA ADV GP (USAR) WASH
1 EA USA AD SCH TEXAS
1 EA USA ARMOR SCH KY
1 EA USA CHAPLAIN SCHOOL NY
1 EA USA C&GS COLL KAN
1 EA US INTELL SCH ARIZ
1 EA USA ORD SCH APG MD
1 EA USA SIG SCH N J
1 EA US WAC SCH ALA
1 EA USA WAR COLL PA
1 EA WEST POINT MIL ACAD N Y
1 EA USA MED FLD SERV SCH TEXAS
1 SUPT USCG ACAD CONN
1 CO USCG TNG CTR N J
1 CO USCG TNG CTR N Y
1 DIR OF MIL PSYCH N Y
1 DIR USA MANPOWER RES R & D CTR ARL VA
1 CO 3D BDE 4TH INF
1 DIR MOTIVATION & TNG LAB VA
1 BEHAV SCI OFC SCI DIV ARD
1 AFHRL MANPOWER DEVELPM ALEX VA
1 USAF DEPT OF LIFE & BEHAV SCI COLO

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